Pennwood Cyber Charter School Application

## **German I**



## German I

Course Instructional Time: 170 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

This is a beginning level course that will introduce the student to a variety of areas of language learning.

In Semester A, the student will learn listening, speaking, reading, and writing skills through a variety of activities. Throughout the five units, or themes, of material (greetings, the date, weather, time, and colors), the student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is presented throughout the course.

In Semester B, the student will learn listening, speaking, reading, and writing skills through a variety of activities. Throughout the five units, or themes, of material (city, family, food, leisure time, and school and chores), the student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is presented throughout the course to help the learner focus on the German-speaking world, people, geographical locations, and histories.

## Semester A

#### 1. Die Grüße

- 1. Lektion 1
  - Identify unit objectives and expectations
  - Identify German words frequently used in English
- 2. Lektion 2
  - Identify vocabulary and expressions for greetings and farewells
  - Identify reasons for learning the German language
- 3. Lektion 3
  - Recognize and recite the German alphabet

- Identify special characters in German, and how to make them on a computer
- 4. Lektion 4
  - Use greetings and farewells appropriate to time and situation
- 5. Lektion 5
  - Apply knowledge of German to give your name and ask for someone's name
- 6. Lektion 6
  - Apply knowledge of German to ask and answer the question, "Where are you from?"
  - Use vocabulary to express how you are doing
  - Compose a written conversation that demonstrates the ability to give a greeting, ask basic questions, and give a farewell
- 7. Lektion 7
  - Apply knowledge of German to ask and answer the question, "Where do you live?"
- 8. Lektion 8
  - Identify characteristics of Frankfurt
  - Recall how to respond to basic questions about yourself in German
- 9. Lektion 9
  - Determine when to use the formal or informal form of "you"
- 10. Lektion 10
  - Apply knowledge of German to ask and answer the question, "Where do you live?"
  - Recall vocabulary for greetings and farewells
  - Ask and answer basic questions in formal and informal situations
- 11. Lektion 11
  - Identify several places where German is spoken
- 12. Lektion 12
  - Identify German contributions that impact American culture
  - Recall unit vocabulary
- 13. Lektion 13
  - Ask and answer basic questions in formal and informal situations
  - Use vocabulary to refer to other people
  - Compare and contrast the structure of the German and English languages
- 14. Lektion 14
  - Describe people using vocabulary and the third person singular conjugation
  - Apply proper word order when asking and answering questions
- 15. Lektion 15
  - Recall unit vocabulary
- 16. Lektion 16
  - Identify biographical information about Albert Einstein
- 17. Lektion 17

#### 2. Der Kalender

- 1. Lektion 1
  - Use vocabulary related to the days of the week
- 2. Lektion 2
  - Identify geographic and cultural characteristics of Germany
- 3. Lektion 3
  - Identify architectural characteristics of Germany
  - Identify cultural characteristics of Munich
  - Use vocabulary for common activities
- 4. Lektion 4
  - Ask and answer questions in a written conversation about activities using the days of the week
- 5. Lektion 5

 Identify rules of German etiquette, including appearance, nonverbal communication, and gestures

#### 6. Lektion 6

- Apply singular and plural nouns appropriately
- Apply definite articles in agreement with gender and plurality
- Apply rules of gender and plurality to nouns

#### 7. Lektion 7

- Identify characteristics of calendars in Germany
- Identify numbers 0 to 10
- 8. Lektion 8
  - Apply knowledge of numbers 0 to 10 to perform simple math equations in German
- 9. Lektion 9
  - Identify numbers 0 to 31
  - Use vocabulary to ask for and express the date; apply knowledge of German conventions to write and interpret the date
- 10. Lektion 10
  - Obtain and provide information about friends and their activities by conjugating verbs into the third person using the appropriate third-person pronouns
- 11. Lektion 11
  - Apply rules of grammar to subject pronouns
- 12. Lektion 12
  - Match subject pronouns in German to their English equivalents
- 13. Lektion 13
  - Use vocabulary related to months
- 14. Lektion 14
  - Match months in German to their English translations
- 15. Lektion 15
  - Conjugate regular verbs in the present tense
  - Match verb endings with the appropriate pronoun
- 16. Lektion 16
  - Demonstrate listening proficiency by matching spoken German with its written English translation
- 17. Lektion 17

## 3. Das Wetter

- 1. Lektion 1
  - Identify characteristics of the weather in Germany
- 2. Lektion 2
  - Use vocabulary and expressions to ask about and describe the weather
  - Match weather phrases in German to their English translations
- 3. Lektion 3
  - Identify Celsius as the scale used to measure temperature in Germany and many other countries
  - Use vocabulary and expressions to ask about and describe the temperature
  - Apply knowledge of the Celsius scale to determine whether a temperature is cold, cool, warm, or hot
  - Apply knowledge of vocabulary to identify information from a reading passage about the weather, seasons, and other information
  - Engage in written conversations about the weather and locations
- 4. Lektion 4
  - Use action verbs to describe what the weather is doing
  - Use vocabulary related to seasons

- Demonstrate proficiency with spoken German by recording yourself reciting a German poem
- Write journal entries describing the date and day, your activities, and the weather
- 5. Lektion 5
  - Match vocabulary related to the weather and date to their English translations
  - Match vocabulary related to the weather to the appropriate season
- 6. Lektion 6
  - Identify characteristics of sport, recreation, and leisure activities in Germany
- 7. Lektion 7
  - Identify characteristics of German homes
  - Identify characteristics of German towns or villages, including gardens, shops, and food stores
- 8. Lektion 8
  - Conjugate the irregular verbs haben and sein in the present tense
- 9. Lektion 9
  - Describe your likes
- 10. Lektion 10
  - Describe your dislikes
  - Use interrogative pronouns to ask for specific information
  - Engage in written conversations about likes and dislikes
- 11. Lektion 11
  - Section introduction
- 12. Lektion 12
  - Use vocabulary related to sports and leisure activities
- 13. Lektion 13
  - Match vocabulary related to sports and leisure activities to their English translations
  - Apply knowledge of vocabulary to identify information from a reading passage about activities and likes
  - Conjugate the irregular verbs lesen, fern sehen, and Rad fahren in the present tense
- 14. Lektion 14
  - Identify the correct verb form for subject pronouns and verbs
  - Use vocabulary related to leisure activities
  - Use interrogative pronouns to ask for specific information
- 15. Lektion 15
  - Apply inverted word order to ask yes/no questions
  - Match questions about activities to their English translations
  - Apply knowledge of unit vocabulary to identify specific information from a reading passage
  - Demonstrate speaking proficiency and knowledge of question structure, formal and informal address, and unit vocabulary when asking and answer questions
- 16. Lektion 16
  - Match unit vocabulary to their English translations
  - Demonstrate listening proficiency by matching spoken German questions with appropriate responses
- 17. Lektion 17
- 4. Die Uhrzeit
  - 1. Lektion 1
    - Identify geographic and cultural characteristics of Switzerland
    - Use vocabulary related to places found in a city or town
  - 2. Lektion 2
    - Match vocabulary related to places found in a city or town with their English translations
    - Identify verbs associated with specific places in a city or town
  - 3. Lektion 3

- Match verbs with their English translations
- Evaluate how specific products manufactured in Austria, Germany, or Switzerland reflect their culture

#### 4. Lektion 4

- Apply vowel change patterns to conjugate the irregular (stem-changing) verbs laufen, fahren, sprechen, nehmen, sehen, and lesen
- Use irregular verbs to ask and answer questions about specific activities
- Apply knowledge of German vocabulary to identify specific information from a reading passage

#### 5. Lektion 5

- Recall interrogative pronouns
- Change word order in a question to obtain more specific information
- Match questions about activities to their English translations

#### 6. Lektion 6

- Conjugate the irregular verb sein in the present tense
- Conjugate the irregular verbs laufen, fahren, sprechen, nehmen, sehen, and lesen

#### 7. Lektion 7

- Identify cultural characteristics of Switzerland
- Describe your location and what you are doing there
- Use the prepositions in and im to describe where you are

#### 8. Lektion 8

- Recall numbers 0 to 100
- Apply knowledge of numbers 0 to 100 to perform simple math equations in German

#### 9. Lektion 9

- Apply knowledge of numbers and time-specific vocabulary to express the time
- Identify differences between the 24- and 12-hour clock

#### 10. Lektion 10

- Demonstrate listening proficiency by identifying a spoken time
- Apply knowledge of numbers and time-specific vocabulary to express the time
- Identify European time zones; identify the difference in time between European countries and U.S. Eastern Standard Time

#### 11. Lektion 11

- Use the phrase "Um wie viel Uhr?" to ask what time something takes place
- Use the preposition um to express at what time something takes place
- Apply knowledge of numbers and time-specific vocabulary to express the time

#### 12. Lektion 12

Recall vocabulary specific to expressing the time

#### 13. Lektion 13

- Recall vocabulary related to places found in a city or town
- Demonstrate listening proficiency by answering questions about a spoken passage

## 14. Lektion 14

- Identify historical characteristics of Switzerland
- Apply knowledge of numbers 0 to 100 to perform simple math equations in German

## 15. Lektion 15

- Translate English phrases and questions about time, place, and activities into German
- Apply time-manner-place sentence order
- Match times expressed in the 12-hour clock to those expressed in the 24-hour clock

#### 16. Lektion 16

- Apply knowledge of numbers 0 to 100 to perform simple math equations in German
- Demonstrate listening proficiency by matching spoken times and numbers to their numeric or written forms

#### 17. Lektion 17

#### 5. Die Farben

- 1. Lektion 1
  - Compare German and English sentence structure
- 2. Lektion 2
  - Identify adjectives commonly used to describe people
  - Conjugate the irregular verb sein in the present tense
- 3. Lektion 3
  - Match forms of sein to their appropriate pronouns
  - Conjugate the separable prefix verb aussehen to ask about or describe how someone looks
- 4. Lektion 4
  - Apply knowledge of German vocabulary to identify specific information from a reading passage
  - Write a description of yourself using adjectives and the verb sein
  - Use vocabulary to ask someone what he or she looks like
  - Identify fairy tales as an important aspect of German culture
- 5. Lektion 5
  - Use vocabulary specific to colors
  - Match colors to their English translations
- 6. Lektion 6
  - Conjugate the separable prefix verb aussehen to ask about or describe how someone looks
  - Match adjectives to their English translations
- 7. Lektion 7
  - Use vocabulary specific to colors
- 8. Lektion 8
  - Use vocabulary related to school
  - Match school subjects to their English translations
  - Use the phrase "es gibt" to express what there is or there are
  - Use the verb haben to express possession
- 9. Lektion 9
  - Use the phrase "es gibt" to express what there is or there are
  - Use the verb haben to express possession
  - Change the form of articles for masculine direct objects
- 10. Lektion 10
  - Change the form of articles for masculine direct objects
  - Transcribe spoken words
- 11. Lektion 11
  - Identify kindergarten as a concept that came to the United States from Germany
  - Combine nouns appropriately to form compound nouns
  - Use the preposition zum to express using something for a purpose
- 12. Lektion 12
  - Recall prior learning
  - Recall rules of pronunciation, such as those for "s" before "t" or "p" at the beginning of a word or syllable sounds like /sch/, and the "ei" and "ie" vowel sounds
- 13. Lektion 13
  - Identify English translations for school supplies
  - Identify specific cognates and false cognates between English and German
  - Recall rules of pronunciation, such as those for "s" before "t" or "p" at the beginning of a word or syllable sounds like /sch/, and the "ei" and "ie" vowel sounds
- 14. Lektion 14
  - Apply rules of gender and plurality to articles and adjective endings

- 15. Lektion 15
  - Apply rules of gender and plurality to articles and adjective endings
- 16. Lektion 16

#### 6. Semester Exam

1. Semester Exam

#### Semester B

#### 1. Die Stadt

- 1. Lektion 1
  - Identify unit objectives and expectations
  - Recall vocabulary for places in a city or town
- 2. Lektion 2
  - Identify differences between the city and the country
  - Use vocabulary specific to places in the city and the country
  - Match vocabulary specific to places in the city and the country to their English translations
- 3. Lektion 3
  - Use indefinite articles in agreement with gender and plurality
- 4. Lektion 4
  - Identify characteristics of the Spanish Riding School and Lipizzan stallions
  - Conjugate the verb wissen
- 5. Lektion 5
  - Use vocabulary specific to expressing location in relation to another place
  - Apply the dative case
- 6. Lektion 6
  - Use modal auxiliary verbs to express desires, abilities, and obligations
- 7. Lektion 7
  - Use modal auxiliary verbs to express desires, abilities, and obligations
- 8. Lektion 8
  - Differentiate between using möchte and a verb + gern to express whether you would like or you do like
- 9. Lektion 9
  - Translate spoken German into written English
  - Use modal auxiliary verbs to express desires, abilities, and obligations
- 10. Lektion 10
  - Use modal auxiliary verbs to express desires, abilities, and obligations
  - Translate spoken German into written English
- 11. Lektion 11
  - Identify biographical characteristics of Johan Strauß, Jr.
  - Apply knowledge of German vocabulary to identify specific information from a reading passage
  - Describe your town, including what places are located there and where they are located in relation to other places in the town
- 12. Lektion 12
  - Conjugate modal auxiliary verbs
  - Use modal auxiliary verbs to express desires, abilities, and obligations
- 13. Lektion 13
  - Use vocabulary to ask and answer the questions "Where are you going?" and "Why?"
- 14. Lektion 14
  - Use vocabulary to ask and answer the questions "Where are you going?" and "Why?"
  - Use dative and accusative prepositions

#### 15. Lektion 15

- Translate vocabulary and expressions from the unit
  - Apply dative and accusative prepositions to unit vocabulary

#### 16. Lektion 16

- Recall unit vocabulary and grammar
- 17. Lektion 17

#### 2. Die Familie

- 1. Lektion 1
  - Recall vocabulary for expressing dates in German
  - Use vocabulary related to family members
- 2. Lektion 2
  - Use vocabulary related to family members
  - Match vocabulary related to family members to their English translations
- 3. Lektion 3
  - Use possessives to express what you do or do not have
- 4. Lektion 4
  - Use vocabulary for expressing dates in German
- 5. Lektion 5
  - Use vocabulary and expressions to ask and answer the question, "When is your birthday?"
  - Apply pronunciation when singing in German
- 6. Lektion 6
  - Use adjectives to make comparisons
  - Match German expressions to their English translations
  - Use possessives to express what you or someone else does or does not have
- 7. Lektion 7
  - Use vocabulary related to family members
- 8. Lektion 8
  - Express personal preferences and the preferences of others
- 9. Lektion 9
  - Express personal preferences and the preferences of others
- 10. Lektion 10
  - Apply forms of the possessive adjective sein in agreement with gender and plurality
- 11. Lektion 11
  - Apply forms of the possessive adjectives ihr, unser, and euer in agreement with gender and plurality
- 12. Lektion 12
  - Use possessive adjectives
- 13. Lektion 13
  - Use vocabulary related to family members
  - Identify cultural characteristics of German birthdays and other special events
- 14. Lektion 14
  - Use vocabulary and expressions related to birthdays and other special events
- 15. Lektion 15
  - Apply knowledge of German vocabulary to identify specific information from a reading passage
  - Use vocabulary related to family members
  - Use possessive adjectives
- 16. Lektion 16
  - Match vocabulary and expressions related to birthdays and other special events to their English translations
- 17. Lektion 17

#### 3. Das Essen

- 1. Lektion 1
  - Recall vocabulary and expressions for discussing preferences
  - Identify vocabulary related to breakfast and breakfast foods
- 2. Lektion 2
  - Use vocabulary related to breakfast and breakfast foods
  - Match vocabulary related to breakfast foods with their English translations
- 3. Lektion 3
  - Use vocabulary related to dining
  - Identify characteristics of the Black Forest
  - Describe your breakfast preferences and ask about the preferences of others; describe the preferences of others
- 4. Lektion 4
  - Identify cultural characteristics of the midday Mittagessen and Mittagspause in Germany
  - Use vocabulary related to food and dining
- 5. Lektion 5
  - Use vocabulary to describe whether someone is hungry or thirsty
  - Use accusative pronouns to describe specific objects
- 6. Lektion 6
  - Use accusative pronouns to describe specific objects
  - Use vocabulary related to beverages
  - Categorize vocabulary associated with food and drinks
- 7. Lektion 7
  - Match expressions related to food and dining to their English translations
- 8. Lektion 8
  - Identify characteristics of the Black Forest
  - Identify German cultural perspectives and practices related to dining
- 9. Lektion 9
  - Use accusative prepositions and prepositional phrases to show the relationship between two things
  - Use vocabulary related to food and dining
  - Demonstrate proficiency by responding in writing to spoken questions
- 10. Lektion 10
  - Identify German cultural perspectives and practices related to dining
- 11. Lektion 11
  - Match accusative prepositions with their English translations
  - Translate prepositional phrases into German
- 12. Lektion 12
  - Identify German cultural perspectives and practices related to dining
- 13. Lektion 13
  - Apply knowledge of German vocabulary to identify specific information from a reading passage
  - Use vocabulary and expressions related to dining in a restaurant
- 14. Lektion 14
  - Use vocabulary and expressions related to dining in a restaurant
- 15. Lektion 15
  - Recall vocabulary and expressions related to food and dining
- 16. Lektion 16
- 17. Lektion 17
- 4. Die Freizeit
  - 1. Lektion 1

- Use vocabulary and expressions related to sports and leisure activities
- 2. Lektion 2
  - Match vocabulary and expressions related to sports and leisure activities to their English translations
  - Use vocabulary and expressions related to sports and leisure activities
- 3. Lektion 3
  - Apply knowledge of German vocabulary to identify specific information from reading passages
  - Use vocabulary and expressions generally used in telephone conversations
- 4. Lektion 4
  - Determine whether to use forms of Sport, machen, or treiben when talking about sports
  - Use vocabulary to describe the frequency of actions
  - Match vocabulary for time and frequency to their English translations
- 5. Lektion 5
  - Identify cultural and geographical characteristics of northern Germany
  - Recall accusative and dative prepositions
- 6. Lektion 6
  - Recall forms of the definite article "the"
  - Describe the time of day or frequency that you perform specific activities
- 7. Lektion 7
  - Recall accusative and dative prepositions
- 8. Lektion 8
  - Use vocabulary and expressions related to sports and leisure activities
- 9. Lektion 9
  - Use vocabulary to describe the frequency of actions
  - Apply knowledge of German vocabulary to identify specific information from written and spoken passages
  - Use vocabulary and expressions related to sports and leisure activities
- 10. Lektion 10
  - Use accusative and dative prepositions
- 11. Lektion 11
  - Use vocabulary and expressions related to sports and leisure activities
  - Identify similarities and differences between American and German cultures relative to leisure time
- 12. Lektion 12
  - Use accusative and dative prepositions
- 13. Lektion 13
  - Identify how to extend and accept an invitation
- 14. Lektion 14
  - Identify how to extend, accept, and decline an invitation
- 15. Lektion 15
  - Identify similarities and differences between American and German cultures relative to leisure time
  - Use vocabulary and expressions related to sports and leisure activities
  - Use vocabulary to describe the frequency of actions
- 16. Lektion 16
  - Apply knowledge of German to extend, accept, and decline invitations
- 17. Lektion 17

## 5. Die Schule und Pflichten

- 1. Lektion 1
  - Recall vocabulary related to school and education

## 2. Lektion 2

- Identify characteristics of schools and a typical student's day in Germany
- Compare the typical school day in Germany to the typical school day in the United States
- Use vocabulary related to school and school supplies

#### 3. Lektion 3

- Use vocabulary related to school subjects
- Match vocabulary related to school subjects with their English translations

#### 4. Lektion 4

Use vocabulary related to school subjects

#### 5. Lektion 5

- Use words to describe sequence; use appropriate vocabulary to express schedule information
- Describe your school schedule and ask a classmate about his or school schedule

#### 6. Lektion 6

- Recall conjugations for stem-changing verbs
- Identify characteristics of the typical German and European school schedule

#### 7. Lektion 7

Use vocabulary and expressions related to transportation

#### 8. Lektion 8

Identify characteristics of German homes

#### 9. Lektion 9

- Use vocabulary and expressions related to homes and furniture
- Describe your home

#### 10. Lektion 10

- Use vocabulary and expressions related to appliances, cleaning supplies, and household chores
- Match vocabulary and expressions related to appliances, cleaning supplies, and household chores with their English translations
- Use the noun "man" to describe what one does

#### 11. Lektion 11

- Use vocabulary and expressions related to appliances, cleaning supplies, and household chores
- Conjugate and use mixed verbs to express duty, preference, and ability
- 12. Lektion 12
- 13. Lektion 13
  - Identify characteristics of student life in Germany; compare and contrast student life in Germany with student life in the United States

#### 14. Lektion 14

Use separable-prefix verbs and multiple-verb sentences

#### 15. Lektion 15

- Recall unit vocabulary and grammar
- Apply knowledge of German vocabulary to identify specific information from spoken passages
- Describe your home life, including the chores that you do
- Describe your habits and preferences concerning school and studying
- 16. Lektion 16

## 6. Semester Exam

1. Semester Exam

## **German II**



## **German II**

Course Instructional Time: 170 hours

## **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

## **Semester A Summary:**

German II A is an intermediate level course that will introduce the student to a variety of areas of language learning. In this course, the student will continue to learn listening, speaking, reading, and writing skills through a variety of activities. Throughout the five units, or themes, of material (daily routine, animals, pastimes, the body, and descriptions), the student will learn to express himself using an ever-increasing vocabulary, past-tense verbs, demonstrative articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is presented throughout the course to help the learner focus on the German-speaking world, people, geographical locations, and histories.

## **Semester A Outline**

## 1. Der Tagesablauf

- Introduce oneself in German
- Distinguish between cognates and false friends
- Use reflexive verbs to describe daily activities
- Tell and ask for the time
- Discuss likes and dislikes of Bavarian food

#### 2. **Die Tiere**

- Identify additional cognate patterns and avoid more false friends.
- Talk about pets, farm animals and exotic animals.
- Form the comparative and superlative of German adjectives.
- Use demonstrative adjectives to talk about which things students prefer.
- Experience Berlin, Germany's capital.

## 3. Die Freizeit

- Engage in conversations about hobbies.
- Obtain and present information about sports and other pastimes.
- Make comparison statements
- Make superlative statements
- Place direct object pronouns correctly

## 4. Der Körper

- Talk about what one does with different body parts.
- Report physical complaints to a doctor.

©2022 Pearson Online & Blended Learning K-12 USA. All rights reserved.

- Describe various illnesses.
- Use indirect object pronouns to refer to body parts.
- Speak in the past tense about things that happened.

## 5. Die Beschreibung

- Describe oneself and others using "sein" and adjectives.
- Obtain and present information about people's nationalities.
- Use verbs of motion in the past tense.
- Differentiate the verbs "kennen" and "wissen".
- Discuss the German state of Baden-Württemberg.

#### 6. **Semester Exam**

- 1. Semester Exam
  - Identify strategies that you will use to prepare for your exam
  - Organize your time and study materials
  - Review your notes, answers to lesson questions, and key vocabulary terms

## **Semester B Summary:**

This course is a continuation of German II A. In this course, the student will continue to learn listening, speaking, reading, and writing skills through a variety of activities. Throughout the five units, or themes, of material (house, shopping, leisure, travel destinations, and flying), the student will learn to express himself using an ever-increasing vocabulary, past-tense verbs, dative expressions, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is presented throughout the course to help the learner focus on the German-speaking world, people, geographical locations, and histories.

## **Semester B Outline**

#### 1. Das Haus

- Talk about your house using terminology related to different rooms and furnishings
- Discuss events that happened in the past
- Learn additional cognate patterns
- Explore homes in other countries
- Continue to develop conversational skills in German

## 2. Das Einkaufen

- Use the numbers beyond one hundred to obtain and understand pricing information
- Talk about shopping habits and preferences
- Ask for and understand information related to purchasing various goods
- Compare shopping habits such as the use of credit cards, ATMs etc. in Germany and the U.S.
- Explore the KaDeWe, Germany's largest department store

## 3. Die Freizeit Angebot

- Discuss a variety of types of entertainment
- Describe German snack foods
- Use more past tense forms
- Use adjectives and adverbial phrases of time
- Respond negatively to questions

## 4. Reiseziele

- Discuss plans for traveling and camping
- Express feelings and describe experiences
- Demonstrate your understanding of the dependent clauses

- Obtain and present information using indirect questions
- Review giving commands

## 5. Flugreisen

- Discuss plans for taking an international trip
- Experience the steps necessary when entering a German-speaking country
- Engage in conversations using "in order to..." to link cause and effect
- Obtain and present information using the 24-hour time system
- Navigate public transportation in German-speaking countries

## 6. **Semester Exam**

1. Semester Exam

Pennwood Cyber Charter School Application

## **German III**



## **German III**

**Course Instructional Time:** 170 hours

## **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

## **Semester A Summary:**

German III A is a continuation of the first two years of German instruction. In this course, the student will continue to learn and practice successful communication through speaking, writing, reading, and listening. Throughout the five units, or themes, of material (Die Gefühle, Der Verkehr, Bei der Arbeit, Land und Leute, and Die Zukunft), the student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is presented throughout the course to help the learner focus on the German-speaking world, people, geographical locations, and histories.

## **Semester A Outline**

## 1. Introduction to German III

1. Welcome to German III!

#### 2. Gesundheit

- 1. Lektion 1A Kontext (Day 1)
  - Identify vocabulary to discuss everyday routines
  - Recognize vocabulary for parts of the body
  - Organize events in chronological order
- 2. Lektion 1A Kontext (Day 2)
  - Label the parts of the body
  - Recognize vocabulary to discuss everyday routines
  - Demonstrate listening comprehension, writing down dictated words
- 3. Lektion 1A Aussprache und Rechtschreibung
  - Produce vocalic r with proper pronunciation
  - Demonstrate listening comprehension by writing down dictated words
- 4. Lektion 1A Fotoroman
  - Recall vocabulary that discusses everyday routines
  - Summarize a short film, discussing the details and characters
- 5. Lektion 1A Kultur
  - Identify cultural aspects found in Germany
  - Summarize information about cultural aspects in Germany

- 6. Strukturen 1A.1 (Day 1)
  - Form reflexive verbs with accusative reflexive pronouns
- 7. Strukturen 1A.1 (Day 2)
  - Select the correct reflexive pronoun in sentences
  - Conjugate reflexive verbs with accusative reflexive pronouns
- 8. Strukturen 1A.2 (Day 1)
  - Produce reflexive verbs with dative reflexive pronouns
  - Select the correct article to use with reflexive verbs
- 9. Strukturen 1A.2 (Day 2)
  - Differentiate between the accusative and dative cases
  - Select the correct reflexive pronoun
  - Compose sentences with reflexive verbs and dative reflexive pronouns
- 10. Strukturen 1A.3 (Day 1)
  - Form reciprocal and reflexive verbs with prepositions
  - Distinguish the difference between reciprocal and reflexive verbs
  - Produce sentences with reflexive pronouns
  - Describe pictures using reciprocal and reflexive verbs
- 11. Strukturen 1A.3 (Day 2)
  - Distinguish the difference between reciprocal and reflexive verbs
  - Select the correct reflexive pronoun
  - Describe pictures using reciprocal and reflexive verbs
- 12. Lektion 1A (Review)
  - Produce correct pronunciation for the vocabulary in this unit
  - Recognize vocabulary to discuss everyday routines
- 13. Lektion 1A (Quiz)
- 14. Zapping
  - Summarize a television advertisement
- 15. Lektion 1B Kontext (Day 1)
  - Recognize vocabulary and expressions related to healthcare
- 16. Lektion 1B Kontext (Day 2)
  - Recognize vocabulary to discuss illnesses and injuries
  - Select the correct dative pronoun
  - Demonstrate listening comprehension to match sentences with pictures
- 17. Lekiton 1B Aussprache und Rectshreibung
  - Produce correct pronunciation of different syllabic stress
  - Demonstrate listening comprehension, writing down dictated sentences
- 18. Lektion 1B Fotoroman
  - Summarize a short film
  - Organize events from a short film in chronological order
- 19. Lektion 1B Kultur
  - Summarize information about an apothecary in Germany
- 20. Strukturen 1B.1 (Day 1)
  - Conjugate verbs in the subjunctive tense
  - Compose sentences in the subjunctive tense
- 21. Strukturen 1B.1 (Day 2)
  - Conjugate verbs in the subjunctive tense
  - Differentiate between the indicative and subjunctive tenses
- 22. Strukturen 1B.2 (Day 1)
  - Compose sentences with the subjunctive form würden plus the infinitive
  - Describe pictures using the subjunctive form würden plus the infinitive

- 23. Strukturen 1B.2 (Day 2)
- 24. Lektion 1B (Review)
  - Produce correct pronunciation for the vocabulary in this unit
  - Recognize vocabulary to discuss illness, injuries, and healthcare
- 25. Lektion 1B (Quiz)
- 26. Panorama
  - Identify cultural and historical aspects in Germany
- 27. Lesen and Hören
- 28. Gesundheit Portfolio
- 29. Gesundheit Practice
- 30. Gesundheit Test

## 3. Stadtleben

- 1. Lektion 2A Kontext (Day 1)
  - Identify vocabulary to discuss errands
  - Produce vocabulary to discuss errands with correct pronunciation
- 2. Lektion 2A Kontext (Day 2)
  - Recall vocabulary related to errands and places in town
- 3. Lekiton 2A Aussprache und Rectshreibung
  - Produce proper pronunciation of the glottal stop
  - Demonstrate listening comprehension, writing dictated sentences
- 4. Lektion 2A Fotoroman
  - Summarize a short film, including describing characters
- 5. Lektion 2A Kultur
  - Identify vocabulary about pedestrian zones
- 6. Strukturen 2A.1 (Day 1)
  - Select the correct subordinating conjunction in sentences
  - Distinguish the difference between als and wenn
- 7. Strukturen 2A.1 (Day 2)
  - Select the appropriate subordinating conjunction
  - Construct sentences with als and the perfect tense
- 8. Strukturen 2A.2 (Day 1)
  - Compose sentences using adjectival nouns
- 9. Strukturen 2A.2 (Day 2)
  - Produce sentences with adjectival nouns
- 10. Strukturen 2A.3 (Day 1)
  - Conjugate verbs in the future I tense
- 11. Strukturen 2A.3 (Day 2)
  - Form verbs in the future I tense in writing
- 12. Lektion 2A (Review)
  - Recognize vocabulary to discuss errands and places in town
  - Demonstrate proper pronunciation of this unit's vocabulary
- 13. Lektion 2A (Quiz)
- 14. Kurzfilm
  - Summarize a short film
- 15. Lektion 2B Kontext (Day 1)
  - Identify vocabulary about a city
- 16. Lektion 2B Kontext (Day 2)
  - Recall vocabulary about life in a city, matching English to German words
  - Define vocabulary using antonyms
  - Discuss directions to a variety of places in a city

- 17. Lekiton 2B Aussprache und Rectshreibung
  - Demonstrate proper pronunciation of borrowed words
  - Demonstrate listening comprehension, writing dictated sentences
- 18. Lektion 2B Fotoroman
  - Summarize a short film
  - Organize events of a film in chronological order
- 19. Lektion 2B Kultur
  - Identify cultural aspects in Germany, including the arts
- 20. Strukturen 2B.1 (Day 1)
  - Select the correct preposition of direction in writing
- 21. Strukturen 2B.1 (Day 2)
  - Construct sentences with prepositions of direction
  - Demonstrate listening comprehension, matching pictures to dictated sentences
- 22. Strukturen 2B.2 (Day 1)
  - Identify vocabulary to discuss nationalities
- 23. Strukturen 2B.2 (Day 2)
  - Recall vocabulary to discuss nationalities, including country names, adjectives, and languages
- 24. Lektion 2B (Review)
  - Recognize vocabulary about life in a city and nationalities
  - Demonstrate proper pronunciation of vocabulary in this unit
- 25. Lektion 2B (Quiz)
- 26. Panorama
  - Identify cultural, historical, and geographic aspects of a region in Germany
- 27. Lesen and Horen
  - Identify contributions of German writers
  - Identify information about the German government system
- 28. Stadtleben Portfolio
- 29. Stadtleben Practice
- 30. Stadtleben Test

## 4. Semester A

- 1. Semester Exam Practice
- 2. Semester Exam

## **Semester B Summary:**

This course is a continuation of German III A. In this course, the student will continue to learn and practice successful communication through speaking, writing, reading, and listening. This course presents material according to a specific theme, and the student will learn to express himself through a variety of activities using his ever-increasing vocabulary and grammar knowledge. Culture is presented throughout the course to help the learner focus on the German-speaking world, people, geographical locations, and histories.

## **Semester B Outline**

## 1. Introduction to German III

1. Welcome to German III!

#### 2. Beruf und Karriere

- 1. Lektion 3A Kontext (Day 1)
  - Define vocabulary to discuss jobs and careers
- 2. Lektion 3A Kontext (Day 2)

- Recall vocabulary related to jobs, careers, and activities in the office
- Organize events in chronological order
- Demonstrate listening comprehension, matching pictures to dictated sentences
- 3. Lekiton 1A Aussprache und Rectshreibung
  - Produce proper pronunciation for borrowed words
  - Demonstrate listening comprehension, writing dictated sentences
- 4. Lektion 3A Fotoroman
  - Summarize a short film
- 5. Lektion 3A Kultur
  - Identify cultural aspects of a German-speaking country
- 6. Lektion 3A Kultur
  - Select the correct relative pronouns in sentences
- 7. Strukturen 3A.1 (Day 2)
  - Select the correct relative pronouns in sentences
  - Identify the relative pronouns in a sentence, using listening comprehension
- 8. Strukturen 3A.2 (Day 1)
  - Compose sentences with the correct form of the past tense
- 9. Strukturen 3A.2 (Day 2)
  - Produce the correct forms of the past tense
  - Describe pictures using the past tense
  - Identify the different forms of the past tense orally
- 10. Lektion 3A (Review)
  - Recognize vocabulary to discuss jobs, careers, and activities in an office
  - Demonstrate proper pronunciation for vocabulary in this unit
- 11. Lektion 3A (Quiz)
- 12. Kurzfilm
  - Identify vocabulary from a short film
  - Organize events from a short film in chronological order
- 13. Lektion 3B Kontext (Day 1)
  - Identify vocabulary to discuss different types of jobs and careers
- 14. Lektion 3B Kontext (Day 2)
  - Recall vocabulary to discuss jobs and careers
- 15. Lekiton 3B Aussprache und Rectshreibung
  - Recognize near-cognates
  - Produce proper pronunciation of near-cognates
  - Demonstrate listening comprehension, writing dictated sentences
- 16. Lektion 3B Fotoroman
  - Describe characters in a short film
  - Summarize a short film
- 17. Lektion 3B Kultur
  - Identify elements of German society, including social insurance
- 18. Strukturen 3B.1 (Day 1)
  - Conjugate verbs in the future II tense
- 19. Strukturen 3B.1 (Day 2)
  - Form verbs in the future II tense
  - Distinguish between future I, future II, and perfect tenses
- 20. Strukturen 3B.2 (Day 1)
  - Select the appropriate adjectival endings
- 21. Strukturen 3B.2 (Day 2)
  - Select the appropriate adjectival endings

- Form the correct adjectival endings in writing
- 22. Lektion 3B (Review)
  - Recall vocabulary related to jobs, careers, and activities in an office
  - Demonstrate proper pronunciation for vocabulary words in this unit
- 23. Lektion 3B (Quiz)
- 24. Panorama
  - Identify cultural, historical, and geographic aspects of regions of Germany
- 25. Lesen and Hören
  - Identify contributions of German writers
  - Distinguish between past, present, and future tenses of verbs
  - Demonstrate listening comprehension, taking notes about the conversation
- 26. Beruf und Karriere Portfolio
- 27. Beruf und Karriere Practice
- 28. Beruf und Kattiere Test

#### 3. Natur

- 1. Lektion 4A Kontext (Day 1)
  - Identify vocabulary to discuss nature and a variety of environments
- 2. Lektion 4A Kontext (Day 2)
  - Recall vocabulary related to nature
- 3. Lekiton 4A Aussprache und Rechtschreibung
  - Demonstrate proper intonation when speaking
  - Demonstrate listening comprehension by writing dictated sentences
- 4. Lektion 4A Fotoroman
  - Summarize a short film
  - Describe characters in a short film
- 5. Lektion 4A Kultur
  - Identify geographic aspects of Germany
  - Identify contributions of a German geographer
- 6. Strukturen 4A.1 (Day 1)
  - Conjugate verbs in the past subjunctive
  - Compose sentences in the past subjunctive tense
- 7. Strukturen 4A.1 (Day 2)
  - Select correct form of the auxiliary verb
  - Compose sentences in the past subjunctive tense
  - Demonstrate listening comprehension, writing dictated sentences
- 8. Strukturen 4A.2 (Day 1)
  - Select the correct form of the present participle
  - Form the present participle in sentences
- 9. Strukturen 4A.2 (Day 2)
  - Select the correct adjectival endings
  - Form the present participle correctly
  - Identify when present participles are used as adjectives
  - Demonstrate listening comprehension, writing dictated sentences
- 10. Lektion 4A (Review)
  - Recall vocabulary to discuss nature
  - Demonstrate proper pronunciation for target vocabulary
- 11. Lektion 4A (Quiz)
- 12. Kurzfilm
  - Summarize a short film about nature
- 13. Lektion 4B Kontext (Day 1)

- Identify vocabulary to discuss environmental issues
- 14. Lektion 4B Kontext (Day 2)
  - Recall vocabulary related to environmental issues, matching English to German words
- 15. Lekiton 4B Aussprache und Rechtschreibung
  - Repeat tongue twisters with proper pronunciation
  - Demonstrate listening comprehension by writing dictated sentences
- 16. Lektion 4B Fotoroman
  - Summarize a short film
- 17. Lektion 4B Kultur
  - Identify an environmental issue in Germany
- 18. Strukturen 4B.1 (Day 1)
  - Form subjunctive I verb tense with indirect speech
  - Distinguish between the indicative and subjunctive I tenses
- 19. Strukturen 4B.1 (Day 2)
  - Distinguish between the indicative and subjunctive I tenses in indirect speech
  - Form the subjunctive tense
  - Identify the past, present, and future subjunctive tenses
- 20. Strukturen 4B.2 (Day 1)
  - Differentiate between the active and passive voices
  - Form the passive voice
- 21. Strukturen 4B.2 (Day 2)
  - Distinguish between the active and passive voices
  - Compose sentences with the present tense of the passive voice and modals
- 22. Lektion 4B (Review)
  - Recognize vocabulary related to environmental issues
  - Demonstrate proper pronunciation of target vocabulary
- 23. Lektion 4B (Quiz)
- 24. Panorama
  - Identify cultural, historical, and geographic aspects of regions in Germany
- 25. Lesen and Hören
  - Identify poems about the environment
  - Identify contributions of German writers
  - Summarize information about environmental issues
- 26. Natur Portfolio
- 27. Natur Practice
- 28. Natur Test

#### 4. Semester B

- 1. Semester Exam Practice
- 2. Semester Exam

Pennwood Cyber Charter School Application

## Middle Chinese I



## Middle Chinese I

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

## **Course Summary:**

Chinese I is an introductory-level course that will introduce the student to Mandarin Chinese. The units are designed to introduce the student to Chinese language and culture through familiar topics such as my family, my week, and food. Culture is presented throughout the course to help the student make connections between his culture and the culture of people in the Mandarin-speaking world.

## **Course Outline:**

#### 1. My World

- 1. Welcome to Mandarin!
  - Recognize the Mandarin words for "hello," "I," "teacher," and "am/is/are"
  - Recognize and write the Mandarin word for the number "one"
  - Recognize that Mandarin words are written using characters
  - Recognize and say Mandarin words using the English alphabet
  - Explain why it is important to learn about other countries and their languages
- 2. What's Your Name?
  - State your first and last name in Mandarin
  - Recognize and say the Mandarin words for "boy," "girl," "this," and "you"
  - Recognize and write the Mandarin word for "two"
  - Recognize the four tones of the Mandarin language
  - Identify the tone marks used to explain how to say Mandarin words aloud
- 3. Meeting My Parents
  - Recognize the sound and say the Mandarin words for "father," "mother," "family," and "my"
  - Write and recognize the Mandarin character for the number "three"
  - Examine and discuss family culture in the Mandarin-speaking world
- 4. Meet My Siblings!

- Recognize the sound and say the Mandarin words for "sister," "brother," and the numbers "four" and "five"
- Write and recognize the Mandarin characters for the numbers "four" and "five"
- Discuss the importance of the oldest son in the traditional Mandarin-speaking world
- Describe the one-child rule

## 5. Meet My Friends

- Recognize the sound and state the Mandarin terms for "friend," "love," and the numbers "six," "seven," and "eight"
- Write and recognize the characters for the numbers "six," "seven," and "eight"
- Examine and discuss friendships in the Mandarin-speaking world

## 6. It's Party Time!

- Recognize the sound and say the Mandarin words for "birthday," "happy," "years old," and the numbers "nine," "ten," and "zero"
- Write and recognize the characters for the numbers "nine," "ten," and "zero"
- State your age in Mandarin
- Examine how birthdays are celebrated in the Mandarin-speaking world

#### 7. Time for a Break

- Recall and use Mandarin vocabulary to greet others and identify family members and friends
- Recognize the important characteristics of Mandarin: characters, sounds, tone, and marks
- Recognize and write the Mandarin words for the numbers zero to ten
- Explain why it is important to learn Mandarin and its importance in the world
- Describe families in the Mandarin-speaking world

## 2. My Time

## 1. It's Monday Morning!

- Recognize the sound and say the Mandarin words for "Monday," "wake up," "bus,"
   "take," and "good morning"
- Write and recognize the Mandarin characters for "Monday"
- Identify the typical weekday morning activities of a student in the Mandarin-speaking world
- Use proper Mandarin terms to greet people you might see in the morning

## 2. A Day at School

- Recognize the sound and say the Mandarin words for "class," "classmate," "school," and "Tuesday"
- Write and recognize the Mandarin characters for "Tuesday"
- Identify typical school day traditions and activities for Mandarin-speaking students

#### 3. After School Time

- Recognize the sound and say the Mandarin words for "Wednesday," "music," "sports,"
   "homework," and "listen"
- Write and recognize the Mandarin character for "Wednesday"
- Identify the typical after-school activities of a student in the Mandarin-speaking world

## 4. Time to Relax!

Recognize the sound and state the Mandarin terms for "reading," "Internet,"
 "Thursday," and the numbers 11 through 19

- Recognize and write the Mandarin terms for "Thursday" and the numbers 11 through 19
- Describe what a student in the Mandarin-speaking world typically does during free time on weekdays
- Compare the free time activities of students in the Mandarin-speaking world with your free time activities

## 5. It's Friday!

- Recognize the sound and say the Mandarin terms for "Friday," "talking," "television,"
   "watching," and the number 20
- Recognize and write the Mandarin characters for "Friday" and the number 20
- Identify what students in the Mandarin-speaking world do with their families on weeknights

## 6. It's the Weekend

- Recognize the sound and say the Mandarin terms for "chores," "play," "Saturday,"
   "Sunday," and the numbers 30, 40, 50, 60, 70, 80, and 90
- Write and recognize the Mandarin characters for "Saturday," "Sunday," and the numbers 30, 40, 50, 60, 70, 80, and 90
- Describe what a middle school student in the Mandarin-speaking world might do on a weekend
- Compare the weekend activities of a student in the Mandarin-speaking world with your typical weekend activities
- Discuss what learning about a typical day in the life of Mandarin students can teach you about their culture

## 7. Bringing It All Together: Sunday Afternoon

- Recall the Mandarin vocabulary about morning routines, school, activities, the days of the week, and the numbers 0 to 90 learned in prior lessons
- Recall the Mandarin vocabulary learned in the prior unit about greetings, family, friends, and birthdays
- Recognize and write the Mandarin characters for the days of the week and the numbers you have learned from 0 to 90
- Recall what you have learned about schools and activities in the Mandarin-speaking world

#### 3. My Food

## 1. Mandarin Meals

- Recognize the sound and say the Mandarin terms for "food," "breakfast," "lunch,"
   "dinner," and "eat"
- Recognize and write the Mandarin character for "eat"
- Compare mealtime traditions in the Mandarin-speaking world with your mealtime traditions

## 2. Good Morning!

- Recognize the sound and say the Mandarin words for "milk," "bread," "tea," "drink," and "morning"
- Recognize and write the Mandarin character for "morning"
- Compare breakfast in the Mandarin-speaking world with your typical breakfast

#### 3. It's Time for Lunch!

- Recognize the sound and say the Mandarin words for "afternoon," "soup," "water,"
   "noodles," and "sandwich"
- Recognize and write the Mandarin characters for "afternoon" and "water"
- Discuss what students in the Mandarin-speaking world typically eat for lunch
- Compare and contrast Mandarin-speaking world lunches with a typical lunch in the United States

#### 4. Mom's Famous Fish Dish

- Recognize the sound and say the Mandarin terms for "evening," "fish," "chicken," "rice," and "vegetable"
- Recognize and write the Mandarin term for "evening"
- Compare dinners in the Mandarin-speaking world with dinners eaten in the United States
- Discuss what studying Mandarin and American foods can teach you about each culture

#### 5. Snack Time

- Recognize the sound and say the Mandarin words for "fruit," "banana," "apple," "yellow," and "red"
- Recognize and write the Mandarin characters for "red" and "yellow"
- Discuss snacks in the Mandarin-speaking world
- Compare Mandarin-speaking world snacks with the snacks you normally eat

## 6. Visiting a Chinese Restaurant

- Recognize the sound and say the Mandarin words for "blue," "menu," "money,""please," and "thank you"
- Recognize and write the Mandarin character for "blue"
- Identify the type of money used in China
- Compare the traditions surrounding going to a restaurant in the Mandarin-speaking world with the traditions of eating out in the United States

## 7. Going to Market

- Recognize the sound of and speak the Mandarin vocabulary for mealtimes, times of day, foods, and colors learned in this unit
- Recognize and write the Mandarin characters for "morning," "afternoon," "evening,"
   "red," "yellow," "blue," "eat," and "water"
- Compare your own culture's meals and traditions with meals and traditions in the Mandarin-speaking world
- Discuss what studying Mandarin and American foods can teach you about their cultures

Pennwood Cyber Charter School Application

## **Middle Chinese II**



## Middle Chinese II

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

## **Course Summary:**

Middle Chinese II enables the student to further develop his communication skills as studies Mandarin Chinese at a more advanced level. The student will continue to learn about Chinese culture as the student studies about historic places in China and other Mandarin-speaking countries and learns of the holidays and special traditions celebrated there. The student will practice his acquisition of Mandarin Chinese skills by continuing to converse with a native Mandarin speaker.

#### **Course Outline:**

## 1. My Travels

- 1. Visiting the Great Wall
  - Recognize the sounds and say the Mandarin terms for "big," "small," "close," "far," and "train"
  - Recognize and write the Mandarin characters for "big" and "small"
  - Recognize key facts about the Great Wall
  - Discuss how the history of Mandarin-speaking countries is connected to the culture
- 2. My Trip to Shanghai
  - Recognize the sound and say the Mandarin terms for "building," "car," "city," "new,"
     "old," "plane," and "subway"
  - Recognize and write the Mandarin characters for "city"
  - Recognize that Shanghai is one of the largest cities in China
  - Compare the main characteristics of Shanghai with any large U.S. city
- 3. The Terracotta Warriors
  - Recognize the sound and say the Mandarin terms for "sad," "tall," "short," and "one hundred"
  - Recognize and write the Mandarin character for "tall"
  - Describe the Terracotta Warriors
- 4. Meeting the Pandas in Sichuan

- Recognize the sound and say the Mandarin terms for "black," "white," "green,"
   "orange," and "excited"
- Recognize and write the Mandarin character for "white"
- Recognize the importance of the panda to the people of China
- Discuss what life is like in the small towns of Sichuan

## 5. Visiting Tibet

- Recognize the sound and say the Mandarin terms for "town," "mountain," "low," "high," and "cold"
- Recognize and write the Mandarin character for "mountain"
- Recognize Tibet as a part of the Mandarin-speaking world and locate it on a map
- Describe the history and main characteristics of Tibet

## 6. Exploring Taiwan

- Recognize the sound and say the Mandarin terms for "sea," "island," "boat," "rain," and "hot"
- Write and recognize Mandarin characters for "sea"
- Locate Taiwan on a map and describe its main characteristics and highlights

## 7. Bringing It All Together: Travel to Singapore

- Recall and apply Mandarin vocabulary to describe travels and attractions in the world around you
- Review the Mandarin characters for "big," "small," "city," "old," "new," "tall," "short,"
   "white," "black," "mountain," "cold," "sea,"
- Review how to write the Mandarin characters for "sea," "mountain," "white," "tall,"
   "city," "big," and "small"

## 2. My Holidays

- 1. Happy Chinese New Year!
  - Recognize the sound and say the Mandarin words for "animal," "dumpling," "festival,"
     "holiday," and "moon"
  - Recognize and write the Mandarin characters for "festival" and "moon"
  - Recognize the importance of the Spring Festival
  - Identify some Spring Festival traditions

#### 2. The Lantern Festival

- Recognize and say the Mandarin words for "January," "children," "fun," "parents," and "sky"
- Recognize and write the Mandarin characters for "January" and "children"
- Identify Lantern Festival traditions

## 3. Tomb-Sweeping Day

- Recognize the sound and say the Mandarin words for "February," "March," "April," "memory," and "miss"
- Recognize and write the Mandarin characters for "February," "March," and "April"
- Recognize the importance of honoring ancestors to people in the Mandarin-speaking world
- Describe Tomb-Sweeping Day traditions

## 4. Dragon Boat Festival

Recognize the sound and state the Mandarin words for "May," "June," "July," "August," and "dragon"

- Recognize and write the Mandarin characters for "May," "June," "July," and "August"
- Recognize that the Dragon Boat festival celebrates the memory of a poet from the past
- Identify Dragon Boat festival traditions

## 5. Chinese Valentine's Day

- Recognize the sound and say the Mandarin words for "September," "October,"
   "November," "December," and "star"
- Recognize and write the Mandarin characters for "September," "October," "November,"
   and "December"
- Compare and contrast Chinese Valentine's Day traditions with Valentine's Day in the United States

## 6. Bringing It All Together: Mid-Autumn Festival

- Recognize and use Mandarin vocabulary to discuss yearly festivals and the months of the year
- Recall the Mandarin vocabulary learned in prior lessons
- Recall how to write the Mandarin characters for "children," "festival," "moon," and the months of the year
- Recall and describe what you have learned about festivals in the Mandarin-speaking world

#### 3. My Home

#### 1. Our New Home!

- Recognize the sound and state the Mandarin words for "home," "buy," "expensive,"
   "cheap," and "sell"
- Recognize and write the Mandarin characters for "home," "buy," and "sell"
- Recognize considerations when buying a home in the Mandarin-speaking world, including feng shui traditions
- Identify the different types of housing in the Mandarin-speaking world, and how they get repaired when needed

## 2. My Favorite Room

- Recognize the sound and state the Mandarin words for "living room," "sofa," "feel,"
   "sad," and "pet"
- Recognize and write the Mandarin characters for "living room" and "sad"
- Identify cultural traditions for decorating a living room in the Mandarin-speaking world
- Recognize how having a pet in the Mandarin-speaking world has changed over time
- Identify the twelve animals in the Chinese zodiac

## 3. Our Dining Room

- Recognize the sound and state the Mandarin words for "dining room," "dining table,"
   "chair," "eat," and "chopstick"
- Recognize and write the Mandarin characters for "dining room" and "chair"
- Identify traditions for decorating a dining room in the Mandarin-speaking world
- Identify the story of a traditional dining table
- Identify some etiquette rules at dining time in the Mandarin-speaking world, and compare them with the ones used in the United States, including ideas about wasting food

#### 4. Our Kitchen

- Recognize the sound and state the Mandarin words for "kitchen," "stove," "tap/faucet,"
   "window," and "air"
- Recognize and write the Mandarin character for "kitchen," "air," and "window"
- Read and analyze the story of the Kitchen God
- Compare some characteristics of kitchens in the Mandarin-speaking world with the kitchen in your home

## 5. My Bedroom

- Recognize the sound and state the Mandarin words "bedroom," "bed," "like (verb, I like)," "clothes," and "wardrobe"
- Recognize and write the Mandarin characters for "bedroom," "bed," and "like"
- Recognize the main characteristics of bedrooms in the Mandarin-speaking world, and compare them with bedrooms in the United States
- Identify the history and relevance of silk in the Mandarin-speaking world, as well as traditional clothes

## 6. Garden Spaces

- Recognize the sound and state the Mandarin words for "garden," "flower," "beautiful,"
   "(to) plant," and "(to) water"
- Recognize and write the Mandarin characters for "flower," "garden," and "beautiful"
- Compare the characteristics of gardens in the Mandarin-speaking world to a garden you might have or have visited
- Identify national, popular, or common flowers or plants in the Mandarin-speaking world

#### 7. You Are Our Guest!

- Apply the Mandarin vocabulary learned in prior lessons
- Recall and describe what you have learned about homes and traditions in the Mandarinspeaking world
- Recall and apply integrated vocabulary and culture words learned in previous units

Pennwood Cyber Charter School Application

# Middle Spanish I



## Middle School Spanish I

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

## **Course Summary:**

Middle Spanish I is an introductory-level course that will introduce the student to Spanish. The units are designed to introduce the student to Spanish language and culture through familiar topics such as my family, my week, and food. Culture is presented throughout the course to help the student make connections between his culture and the culture of people in the Spanish-speaking world.

## **Course Outline:**

#### 1. My Family and Friends

- 1. Welcome to the Spanish-Speaking World!
  - Identify how to greet people in Spanish
  - Recognize the main characteristics of the Spanish language
  - Identify why it is valuable to learn about the Spanish language and culture
  - Explain where the Spanish language comes from and how it has changed over time
- 2. What's Your Name?
  - Demonstrate how to introduce yourself in Spanish and how to say where you are from
  - Recognize the different ways the Spanish language is spoken in different regions around the world
  - Identify relevant geographical and cultural characteristics of Spain
- 3. Meet My Family
  - Recognize and say the Spanish words for "family," "mother," "father," "brother,"
     "sister," "my," and the number 1 to 5
  - Identify the Spanish definite articles and their relation to gender and number
  - Describe the concept of family in the Spanish-speaking world
  - Identify relevant geographical and cultural characteristics of Madrid and other regions of Central Spain
- 4. A Big Family

- Recognize and say the Spanish words for "grandfather," "grandmother," "uncle," "aunt,"
   "cousin," and the numbers 6 to 10
- Identify the Spanish indefinite articles and their relation to gender and number
- Describe the concept of extended family in the Spanish-speaking world, and compare it to that of the U.S.
- Identify relevant geographical and cultural characteristics of Southern Spain, including the concept of "sobremesa"

## 5. Meet My Friends

- Recognize and say the Spanish words for the singular subject pronouns "I," "you," "he,"
   and "she," as well as the word for "friend" and the conjunction "and"
- Identify the differences between formal and informal speech
- Identify Spanish cognates and their usefulness for learning a language
- Describe the Spanish concept of friendship, and compare it to that of the U.S.
- Identify relevant geographical and cultural characteristics of Northern Spain

## 6. Party Time!

- Recognize and say the Spanish words for the plural subject pronouns "you," "we," and "they," as well as the words for "party" and "birthday," and the numbers 11 to 15
- Describe how birthdays and anniversaries are celebrated in the Spanish-speaking world, and compare with how they are celebrated in the United States
- Identify relevant geographical and cultural characteristics of Barcelona

# 7. A Fun Day—and Night!

- Recall and use the Spanish words for greeting others and introducing yourself
- Recall and use the Spanish words for family members and numbers 1 to 15
- Identify why it is valuable to learn about the Spanish language and culture
- Describe family culture in the Spanish-speaking world
- Identify relevant geographical and cultural characteristics of some important places in Spain

## 2. My Home

#### 1. Where I Live

- Recognize and say the Spanish words for "home," "door," "entrance," "room,"
   "window," and the numbers 16 to 20
- Identify the Spanish demonstratives "this is" and "these are," and their relation to distance
- Describe the different types of housing in the Spanish-speaking world and compare them with those of the United States
- Recognize considerations when buying a home in the Spanish-speaking world and compare with considerations in the United States
- Identify relevant geographical and cultural characteristics of Mexico

## 2. Our Living Room

- Recognize and say the Spanish words for "living room," "sofa," "lamp," "in/on," and the numbers 20 to 50 by tens
- Identify the Spanish demonstratives "that" and "those" and their relation to distance
- Describe living rooms in the Spanish-speaking world and compare them with those of the United States

 Identify relevant geographical and cultural characteristics of Mexico City and other important places in Central Mexico

## 3. Our Dining Room

- Recognize and say the Spanish words for "chair," "dining room," "dishes," "glass,"
   "table," "(to) be (estar)," and the numbers 60 to 100 by tens
- Demonstrate the use of the verb "(to) be (estar)" by joining it with singular subject pronouns
- Describe dining rooms in the Spanish-speaking world, and compare them with those of the United States
- Compare and contrast mealtime manners and traditions in the Spanish-speaking world with those of the United States
- Identify relevant geographical and cultural characteristics of Northern Mexico

## 4. Our Kitchen

- Recognize and say the Spanish words for "kitchen," "stove," "refrigerator," "pot," "pan,"
   "(to) cook," and "(to) wash"
- Demonstrate the use of the verb "estar" by joining it with plural subject pronouns
- Describe kitchens in the Spanish-speaking world and compare them with those of the United States
- Recognize the importance of mortars, pestles, and chiles for cooking in Mexico

#### 5. Our Bedrooms

- Recognize and say the Spanish words for "bedroom," "bed," "closet," "big," "small," and "(to) sleep"
- Demonstrate the use of the verb "to be (ser)" by joining it with singular subject pronouns
- Describe bedrooms in the Spanish-speaking world, and compare them with those of the United States
- Recognize the influence of TV and computers on daily life in the Spanish-speaking world and in the United States
- Identify geographic and cultural characteristics of the Yucatán Peninsula, including the capital of Mérida

#### 6. Our Patio

- Recognize and say the Spanish words for "garden," "yard," "plant," "flower," "activity," and "(to) celebrate"
- Demonstrate the use of the verb "(to) be (ser)" by joining it with plural subject pronouns
- Describe patios, backyards, and gardens in the Spanish-speaking world and compare them with those of the United States
- Recognize the history and friendship shared between Mexico and the United States through the story of how poinsettias were first introduced to the United States
- Identify backyard activities in the Spanish-speaking world and compare them with those of the United States

## 7. Visiting Friends

- Recall and use the Spanish words for the rooms of a home and objects commonly found in those rooms
- Recall and use Spanish verbs and numbers 16 to 19 and 20 to 100 by tens
- Recognize Spanish expressions particular to Mexico

Identify popular celebrations and holidays in the Spanish-speaking world

# 3. My Food

# 1. Time to Eat!

- Recognize and say the Spanish words for "hunger," "thirst," "food," "breakfast," "lunch," and "dinner"
- Demonstrate how to ask and answer yes or no questions in Spanish
- Recognize traditional eating habits in the Spanish-speaking world, including the importance of rice, and compare these habits with those of the United States
- Identify main geographic and cultural characteristics of four South American countries:
   Argentina, Chile, Colombia, and Perú

#### 2. What's for Breakfast?

- Recognize and say the Spanish words for "milk," "bread," "cereal," "hot," "cold," and the color orange
- Demonstrate how to tell time in Spanish
- Compare and contrast a typical Argentinean breakfast with a typical breakfast in the United States
- Recognize the importance of soccer in the Spanish-speaking world
- Identify geographic and cultural characteristics of Argentina

#### 3. What's for Lunch?

- Recognize and say the Spanish words for "salad," "chicken," "sandwich," "fruit,"
   "water," "juice," and the color green
- Demonstrate how to express likes and dislikes in Spanish
- Recognize the cultural importance of Chilean poet, Gabriela Mistral
- Identify geographic and cultural characteristics of Chile, including traditional Chilean sandwiches

#### 4. Snack time

- Recognize and say the Spanish words for "snack," "apple," "banana," "strawberry,"
   "carrot," and the color yellow
- Demonstrate how to express wants in Spanish
- Compare and contrast popular Perúvian food and drink with that of the United States
- Identify geographic and cultural characteristics of Perú

## 5. What's for Dinner?

- Recognize and say the Spanish words for "corn," "sauce," "meat," "fish," "tasty," "salty," "sweet," and "bad"
- Demonstrate how to make exclamations in Spanish, related to food and eating
- Recognize the cultural importance of Colombian writer, Gabriel García Márquez
- Recognize the importance of corn to Colombia and compare popular Spanish corn dishes with those of the United States
- Identify geographic and cultural characteristics of Colombia

## 6. A Sunday Family Meal

- Recognize and say the Spanish words for "roast/barbecue," "rice with chicken," "beans,"
   "cake," "dessert," "(to) eat," and "(to) drink"
- Demonstrate how to use Spanish direct object pronouns to say what someone is eating or drinking

- Identify popular desserts in the Spanish-speaking world and compare them to those of the United States
- Recognize the importance of beans to the Spanish-speaking world and compare popular
   Spanish bean dishes with those of the United States
- Explain how food is an important cultural element and how it can serve as artistic inspiration

## 7. Celebrate!

- Recall and use the Spanish words for mealtimes as well as objects and activities related to eating
- Compare and contrast an asado in the Spanish-speaking world with a barbecue in the United States
- Recognize the cultural importance of Colombian music and the Carnaval celebration
- Compare and contrast Chilean Independence Day with that of the United States

Pennwood Cyber Charter School Application

# Middle Spanish II



# **Middle School Spanish II**

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

## **Course Summary:**

Middle Spanish II enables the student to further develop the communicative skills of listening, speaking, reading, and writing of Spanish at a more advanced level. The units are designed to develop the student's knowledge of Spanish language and culture through familiar topics such as my school, my family, and my neighborhood. Culture is presented throughout the course to help the student make connections between his culture and the culture of people in the Spanish-speaking world.

#### **Course Outline:**

## 1. My School

- 1. My School in Puerto Rico
  - Recognize and say the Spanish words for school, principal, teacher, class, classmate, and bus
  - Demonstrate the correct use of the formal tú and the informal usted using the Spanish verbs learned so far, as well as demonstrate the correct use of the verb (to) go
  - Compare and contrast a Puerto Rican school building and schedule with that of a United States school
  - Identify geographic and cultural characteristics of the Caribbean Islands, including defensive structures
- 2. My Classroom
  - Recognize and say the Spanish words for classroom, blackboard, map, lesson, (to) study,
     (to) read, and (to) write
  - Demonstrate the correct use of the Spanish verbs (to) read and (to) study
  - Recognize unique characteristics of a Puerto Rican middle school
  - Identify geographic and cultural characteristics of Puerto Rico, including island animals and its status as a commonwealth
- 3. My Backpack

- Recognize and say the Spanish words for backpack, book, notebook, pencil, pen, paper, and the color white
- Demonstrate the correct use of the Spanish impersonal there is/there are
- Recognize the important achievements of Puerto Rican scientists
- Identify characteristics of San Juan, capital city of Puerto Rico, and Puerto Rican traditional music

# 4. My Lab Class

- Recognize and say the Spanish words for science, experiment, lab, lab coat, safety, and the colors black and red
- Demonstrate correct use of the Spanish verb (to) work
- Compare and contrast endangered species of Cuba with those of the United States
- Identify geographic and cultural characteristics of Cuba
- Recognize the important achievements of Cuban scientists

## 5. My Art Class

- Recognize and say the Spanish words for art class, color, painting, beautiful, ugly, (to) paint, and the color blue
- Demonstrate the correct use of the Spanish verb (to) paint
- Recognize the important achievements of Cuban artists and athletes, as well as salsa performers

# 6. The Playground

- Recognize and say the Spanish words for recess, swing set, soccer, baseball, sport, game, and (to) play
- Demonstrate the correct use of the Spanish verb (to) play with the preposition "with"
- Compare and contrast the popular sports of the Dominican Republic with those of the United States
- Identify geographic and cultural characteristics of the Dominican Republic

#### 7. My Graduation

- Recall and use the Spanish words for school and classrooms, as well as objects and activities related to school
- Compare and contrast a graduation ceremony in the Spanish-speaking world with one in the United States
- Recognize the influence of Caribbean culture upon the culture of the United States
- Identify geographic characteristics of the coral reefs of the Caribbean Sea

# 2. My Clothes

## 1. My Everyday Clothes

- Recognize and say the Spanish words for pants, shirt, blouse, T-shirt, socks, old, and new
- Demonstrate correct use of the Spanish 1st and 2nd person possessive
- Recognize some traditional clothes used in the Spanish-speaking world
- Recognize the cultural influence of the Spanish-speaking population within the United States

#### 2. My Winter Clothes

- Recognize and say the Spanish words for coat, sweater, winter, fall, cold, and heat
- Demonstrate the correct use of the Spanish verb (to) have
- Identify geographic and cultural characteristics of California, including Los Ángeles,
   Fresno, and other places related to Spanish culture

Recognize the technological advances being made in the Silicon Valley

## 3. My Summer Clothes

- Recognize and say the Spanish words for dress, shorts, skirt, spring, summer, and swimsuit
- Demonstrate correct use of the Spanish verb (to) use and (to wear)
- Identify geographic and cultural characteristics of Florida, including outdoor activities and Cultural Fridays

## 4. My Accessories

- Recognize and say the Spanish words for sunglasses, belt, purse, cap, hat, and gloves
- Demonstrate the correct use of the Spanish verb (to) put on/wear
- Identify geographic and cultural characteristics of Texas, including the Chihuahuan
   Desert and the rodeo

# 5. My Shoes

- Recognize and say the Spanish words for shoes, boots, sandals, sneakers, formal, and informal
- Demonstrate the correct use of Spanish adverbs
- Recognize the important characteristics and achievements of Spanish fashion designers and other important Spanish-speaking people of the United States

# 6. My Formal Clothes

- Recognize and say the Spanish words for suit, tie, evening dress, striped, checked, and plain
- Demonstrate the correct use of the Spanish interrogative ¿Cómo?
- Identify geographic and cultural characteristics of New York City, including Spanishspeaking neighborhoods, food, and theater

## 7. International Day at School

- Recall and use the Spanish words for types of clothing and the seasons, as well as qualities and activities related to clothing
- Recognize the influence of the Spanish-speaking population upon United States culture
- Explain what it means for the United States to be "a cultural melting pot"

## 3. My Neighborhood

## 1. My Neighborhood

- Recognize and say the Spanish words for neighborhood, neighbor, street, avenue, and square
- Demonstrate the correct use of the Spanish verb (to) live
- Identify the unique features of neighborhoods found in the Spanish-speaking world
- Identify geographic and cultural characteristics of Central America, including the concept of a town plaza

## 2. My Neighbors

- Recognize and say the Spanish words for community helpers, firefighter, police officer, mail carrier, guard, and doctor
- Demonstrate the correct use of the Spanish verb (to) help
- Recognize general characteristics of the roles of Costa Rican community helpers
- Identify geographic and cultural characteristics of Costa Rica, including local parks and wildlife

## 3. Services in My Community

- Recognize and say the Spanish words for hospital, post office, police station, left, right, in front, and behind
- Recall the correct use of the Spanish interrogative ¿Dónde?
- Identify common breakfast items shared in Panamá, including frituras
- Identify geographic and cultural characteristics of Panamá, including the Panamá Canal

# 4. My Favorite Places

- Recognize and say the Spanish words for park, movie theater, museum, library, near, and far
- Demonstrate the correct use of the Spanish verb (to) come from, as well as Spanish contractions
- Recognize the important characteristics and achievements of the Nicaraguan poet Rubén Darío
- Identify geographic and cultural characteristics of Nicaragua, including the National Library

# 5. Traveling in My Neighborhood

- Recognize and say the Spanish words for bike, car, pedestrian crossing, traffic light, and
   (to) walk
- Recall and combine previously learned Spanish vocabulary with the verb (to) walk in order to create new expressions
- Recognize the main characteristics of public transportation in Honduras
- Identify geographic and cultural characteristics of Honduras, including the Cusuco National Park

# 6. Enjoying the Neighborhood

- Recognize and say the Spanish words for festival, music, interesting, fun, (to) stroll, and
   (to) have fun
- Demonstrate correct use of the Spanish verb (to) have fun
- Explain the importance of el gallo pinto, the national dish of Nicaragua, and how it is made
- Identify the unique characteristics of Central America's weather and music

# 7. Neighborhood Celebrations

- Recall and use the Spanish words for neighborhood and types of transportation, as well as people, objects, and activities related to a community
- Compare and contrast the National Museum Fair of Central America with the International Museum Day of the United States
- Identify geographic and cultural characteristics of Costa Rica, including volcanoes, local plants, and wildlife

Pennwood Cyber Charter School Application

Sign Language 6 - 8



# Middle Sign Language

Course Instructional Time: 85 hours

### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

# **Course Summary:**

In this course, the student will be introduced to the fundamental concepts of American Sign Language. The student will explore vocabulary, grammar, and conversational skills using basic signing and fingerspelling techniques, and will begin to learn about Deaf culture and the Deaf community. A webcam and recording device are required for this course

# **Course Outline**

#### 1. Intro

- 1. History/Culture
  - Define Deaf culture
  - Define Deaf community
  - Identify key cultural norms in the Deaf community
  - Identify unique characteristics of the Deaf culture
- 2. About ASL
  - Define ASL
  - Identify elements of signed language
  - Track dates and events in the introduction of sign language education to America
  - Name key contributors to deaf education in America
- 3. Dialogue
  - Describe conventions used to transcribe ASL
  - Use transcription conventions to translate written text into ASL sentences
- 4. ABCs
  - Identify elements of signed language
  - Name the four parameters of signed language
  - Sign the alphabet
- 5. Fingerspelling
  - Fingerspell 3, 4, and 5 letter words
  - Recognize fingerspelled words
  - Fingerspell proper nouns
- 6. Greetings

Appendices page 1811 Pennwood Cyber Charter School

- Use ASL to greet others and introduce yourself
- Follow the cultural rules associated with greetings, name signs, and goodbyes

# 7. Etiquette

- Define etiquette
- Describe social rules and behaviors observed during interaction in the Deaf community
- Identify key vocabulary
- 8. Review
- 9. Unit Test

### 2. Numbers

- 1. Numbers 1–1,000
  - Sign numbers 0-1,000
  - Explain the unique number patterns for numbers 1–10, 11–15, 16–19, 20, 21–99, 100–900, and 1,000
- 2. Counting and Money
  - Demonstrate the signs for dollar, cents, and how much
  - Recognize the signs for numbers between 0 and 100
  - Demonstrate the signs for numbers between 0 and 100
- 3. Math, Weights, and Measures
  - Demonstrate signs for weights, measures, and simple math functions
- 4. Review
- 5. Unit Test

### 3. **Time**

- 1. The Clock
  - Be able to identify the signs relating to the telling of time
  - Be able to demonstrate the signs relating to the telling of time
  - Be able to describe various times that events happen
- 2. Days and Months
  - Recognize signs for days of the week and months of the year
  - Demonstrate signs for days of the week and months of the year
  - Construct simple sentences using days and months
- 3. Seasons and Holidays
  - Recognize and be able to accurately sign the four seasons of the year
  - Recognize and be able to to accurately sign various holidays
- 4. Review
- 5. Unit Test

#### 4. Nouns

- 1. Identifying and Indexing
  - Demonstrate signs for pronouns
  - Demonstrate indexing
- 2. People
  - Demonstrate signs for family members
  - Recognize signs for family members
- 3. Agent
  - Be able to demonstrate signs of agent
  - Use agent correctly with other signs to show jobs or occupations that people may have
- 4. Dialogue
  - Students will learn how to use punctuation correctly in ASL

- Students will incorporate suffixes into signed dialogue
- 5. Places and Things
  - Demonstrate signs for the names of places and things
- 6. Review
- 7. Unit Test

# 5. **Descriptions**

- 1. Comparative Adjectives
  - Learn the ASL method for using comparative adjectives
  - Make comparisons using correct ASL signs
- 2. DCL Classifiers Size and Shape Specifiers
  - Identify what a classifier is and what function it serves in ASL
  - Use classifiers correctly in signed conversation
- 3. Possession
  - Demonstrate the ASL handshape to indicate possession
  - Be able to accurately sign the various personal pronouns to show possession
- 4. Colors
  - Using ASL, correctly make the signs for various colors
  - Using the ASL signs for colors, as well as previously learned signs, sign descriptive sentences
- 5. Location
  - Demonstrate how to accurately sign various locations using ASL
  - Use the signs for different locations in descriptive sentences
- 6. Dialogue
  - Use correct nonmanual markers in place of state of being verbs
  - Explain how nonmanual markers can change the meaning of a sentence
- 7. Review
- 8. Unit Test

Pennwood Cyber Charter School Application

# Sign Language I



### Sign Language I

**Course Instructional Time: 170 hours** 

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

#### **Course Summary:**

In this course, the student will be introduced to the fundamental concepts of American Sign Language. The student will explore vocabulary, grammar, and conversational skills using basic signing and fingerspelling techniques, and will begin to learn about Deaf culture and the Deaf community. A webcam and recording device are required for this course.

#### **Course Outline**

#### **SEMESTER A**

#### 1. Introduction to ASL

- 1. What Is the Deaf Community?
  - Examine unique aspects of the Deaf community

Introductions and Greetings Vocabulary

Accurately comprehend and produce ASL vocabulary related to introductions and greetings
 Introduction to Fingerspelling

- Accurately produce and comprehend ASL vocabulary
- Interpret and apply fingerspelling techniques

Parameters and Production of Signs

Identify and analyze the five parameters of signs

Quiz

- Compare members of the Deaf community to members of the mainstream hearing community
- Accurately comprehend and produce ASL vocabulary related to introductions and greetings
- Accurately produce and comprehend ASL vocabulary
- Accurately produce and comprehend ASL letters in specialized contexts
- Identify and analyze essential grammatical components of ASL related to parameters and production

## Introduction Portfolio

- Accurately produce and comprehend ASL vocabulary
- Accurately produce and comprehend ASL letters and numbers in specialized contexts
- Demonstrate essential grammatical components of ASL
- Demonstrate mastery of ASL vocabulary and grammar

## **Signing in Space**

What Is Deaf Culture?

• Compare members of the Deaf community to members of the mainstream hearing community

**Pronouns and Possessives** 

Accurately comprehend and produce ASL vocabulary related to pronouns and possessives

#### Numbers 0–30

Accurately produce and comprehend ASL vocabulary for numbers 0-30

## Indexing in Space

Analyze and apply indexing in space

#### Quiz

- Recognize how members of the Deaf community differ from members of the hearing community
- Examine and produce ASL vocabulary related to pronouns and possessives
- Comprehend and produce ASL vocabulary, letters, and numbers in specialized contexts
- Distinguish essential grammatical components of ASL related to indexing in space

### Signing in Space Portfolio

- Accurately produce and comprehend ASL vocabulary
- Accurately produce and comprehend ASL letters and numbers in specialized contexts
- Demonstrate essential grammatical components of ASL
- Demonstrate mastery of ASL vocabulary and grammar

## **Structures and Strategies**

Beginnings of American Sign Language

Examine Deaf history and the development of ASL

Signed Vocabulary—Family

• Accurately comprehend and produce ASL vocabulary related to family

Receptive Fingerspelling Techniques

• Use receptive fingerspelling to produce ASL letters

Sentence Structures for Statements

Analyze and interpret sentence structures for statements in ASL

#### Quiz

- Examine the historical development of ASL
- Recognize and produce ASL vocabulary related to family
- Identify the fundamentals of receptive fingerspelling
- Interpret essential grammatical components of ASL related to parameters and production

#### **Indexing in Space**

- Accurately produce and comprehend ASL vocabulary
- Accurately produce and comprehend ASL letters and numbers in specialized contexts
- Demonstrate essential grammatical components of ASL
- Demonstrate mastery of ASL vocabulary and grammar

#### **Indicating People**

Name Signs

Examine the use of name signs in the Deaf community

Signed Vocabulary-People around Town

• Accurately comprehend and produce ASL vocabulary related to people around town Expressive Fingerspelling Techniques

Identify strategies for expressive fingerspelling

## Agent Marker

Analyze the role of the Agent marker in ASL

# Quiz

- Comprehend the fundamentals of name signs in the Deaf community
- Distinguish and produce ASL vocabulary related to people around town
- · Identify strategies for expressive fingerspelling

Recognize the significance of the agent marker in ASL

#### Agent Marker for Roles

- Accurately produce and comprehend ASL vocabulary
- Accurately produce and comprehend ASL letters and numbers in specialized contexts
- Demonstrate essential grammatical components of ASL
- Demonstrate mastery of ASL vocabulary and grammar

## Community, Calendar, and Clock

Locations of ASL

Identify geographical Deaf communities in the United States

Signed Vocabulary—Calendar

Accurately comprehend and produce ASL vocabulary related to the calendar

The Clock and Time

Comprehend how to indicate specific times in ASL

Sentence Structures for Questions

Analyze sentence structures used for questions in ASL

Quiz

- Identify geographical Deaf communities in the United States
- Comprehend and produce signs related to the calendar
- Implement ASL to indicate specific times
- Comprehend and produce sentence structures for questions in ASL

#### Calendar

- Accurately produce and comprehend ASL vocabulary
- Accurately produce and comprehend ASL letters and numbers in specialized contexts
- Demonstrate essential grammatical components of ASL
- Demonstrate mastery of ASL vocabulary and grammar

#### **SEMESTER B**

#### **Course Summary:**

This course follows Sign Language I A. The goal of Sign Language I B is for the student to become a confident signer by mastering American Sign Language grammar and building vocabulary. Lessons incorporate the various important components of signs including handshape, position, movement, palm orientation, and non-manual markers. The student's vocabulary is strengthened by studying special categories such as lexicalized signs, classifiers, and topic-related signs. The student will learn to translate from Standard English into American Sign Language gloss. A webcam and recording device are required for this course.

#### 1. Advancing the Fundamentals

- 1. American Sign Language in Deaf culture
  - Identify sources of opposition to the Deaf community

Signed Vocabulary—At School

Accurately comprehend and produce ASL vocabulary related to school

Numbers 31-60

Recognize and comprehend signs for numbers 31-60

Introduction to Glossing

Identify key components of ASL gloss

Quiz

- Examine the opposition to ASL and its effects
- Comprehend and produce basic school vocabulary in ASL
- Comprehend and produce basic number vocabulary in ASL
- Identify and analyze key components of ASL gloss

#### Class Scheduling

- Accurately produce and comprehend ASL vocabulary
- Accurately produce and comprehend ASL letters and numbers in specialized contexts
- Demonstrate essential grammatical components of ASL
- Demonstrate mastery of ASL vocabulary and grammar

#### **Careers and Comparisons**

Successful Deaf Individuals

Identify successful Deaf and hard of hearing individuals

Signed Vocabulary—Work and Careers

Accurately comprehend and produce ASL vocabulary related to work and careers

Numbers 61–99

Recognize and comprehend signs for numbers 61-99

Body Shifting for Combinations, Comparisons, and C

Comprehend the method of body shifting in ASL

Quiz

- Recognize successful Deaf and hard of hearing individuals
- Identify and produce basic signs related to work
- Identify and produce basic number signs
- Comprehend the method of body shifting in ASL

#### **Comparing Careers**

- Accurately produce and comprehend ASL vocabulary
- Accurately produce and comprehend ASL letters and numbers in specialized contexts
- · Demonstrate essential grammatical components of ASL
- Demonstrate mastery of ASL vocabulary and grammar

## **Pronominals in Space**

Deaf President Now!

Examine a famous event in Deaf history

Signed Vocabulary—Food and Drink

Accurately comprehend and produce ASL vocabulary related to food

Numbers to 999

Recognize and comprehend signs for numbers through 999

## **Pronominal Classifiers**

Analyze the use of pronominal classifiers in ASL

Quiz

- Investigate the Deaf President Now event
- Identify and produce essential food and drink signs
- Identify and produce number signs
- Analyze pronominal classifiers

#### Pronomials for Food and Drink

- Accurately produce and comprehend ASL vocabulary
- Accurately produce and comprehend ASL letters and numbers in specialized contexts
- Demonstrate essential grammatical components of ASL
- Demonstrate mastery of ASL vocabulary and grammar

## **Sports and Recreation**

Sports in the Deaf Community

• Recognize the importance of sports and recreation in the Deaf community

Signed Vocabulary—Sports and Recreation

Accurately comprehend and produce ASL vocabulary related to sports and recreation

# Numbers to 1 Million

Recognize and comprehend signs for numbers to 1 million

#### **Instrumental Classifiers**

Analyze and interpret the use of instrumental classifiers in ASL

#### Quiz

- Examine the importance of sports and recreation in the Deaf community
- Identify and produce basic ASL vocabulary related to sports and recreation
- Identify and produce number signs
- Analyze and interpret instrumental classifiers

# **Sports Classifers**

- Accurately produce and comprehend ASL vocabulary
- Accurately produce and comprehend ASL letters and numbers in specialized contexts
- Demonstrate essential grammatical components of ASL
- Demonstrate mastery of ASL vocabulary and grammar

#### **Times and Tenses**

**Deaf Culture Today** 

Examine changes that have produced today's Deaf culture

Signed Vocabulary—Seasons and Holidays

• Accurately comprehend and produce ASL vocabulary related to seasons and holidays

# **Signing Years**

Recognize and comprehend signs for numbers related to years

## **Indicating Tense**

Analyze and interpret the grammatical features of using tense in ASL

#### Quiz

- Explore changes that have contributed to what Deaf culture is today
- Identify and produce basic signs related to seasons and holidays
- Identify and produce signs related to years
- Analyze and interpret the grammatical features of using tense in ASL

## Story in Time

- Accurately produce and comprehend ASL vocabulary
- Accurately produce and comprehend ASL letters and numbers in specialized contexts
- Demonstrate essential grammatical components of ASL
- Demonstrate mastery of ASL vocabulary and grammar

Pennwood Cyber Charter School Application

# Sign Language II



# Sign Language II

**Course Instructional Time: 170 hours** 

## **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book

## **Semester A Summary:**

In this course, the student will continue his study of American Sign Language. The student will expand his ASL vocabulary, grammar, and conversational skills. In addition, the student will complete activities and exercises that help him understand the culture of deaf and hard-of-hearing community. A webcam and recording device are required for this course.

## **Semester B Summary:**

In this course, the student will extend the study of American Sign Language at the intermediate level. The student will expand his ASL vocabulary, grammar, and conversational skills, and advance his signing and fingerspelling strategies. The student will continue to analyze elements of Deaf culture and issues surrounding the Deaf community, focusing on careers and continuing education options that utilize American Sign Language. A webcam and recording device are required for this course.

## **Course Outline**

## **SEMESTER A**

# 1. **Descriptions in Space**

- 1. Deaf Literature
  - Examine and explain features of Deaf literature
- 2. Signed Vocabulary—Animals and Colors
  - Accurately produce ASL vocabulary related to animals and colors
- 3. Advanced Expressive Fingerspelling Techniques
  - Examine and apply methods for advancing expressive fingerspelling skills
- 4. Descriptive Classifiers
  - Analyze and interpret descriptive classifiers
- 5. Quiz
  - Examine features of Deaf literature
  - Identify and produce basic signs related to animals and their colors
  - Identify and apply expressive fingerspelling skills
  - Analyze and interpret descriptive classifiers
- 6. Animal Description
  - Accurately produce and comprehend ASL vocabulary

Appendices page 1821 Pennwood Cyber Charter School

- Accurately produce and comprehend ASL letters and numbers in specialized contexts
- Demonstrate essential grammatical components of ASL
- Demonstrate mastery of ASL vocabulary and grammar

# 2. Travel and Transportation

- 1. ASL Storytelling
  - Examine and explain key components of storytelling in the Deaf community
- 2. Signed Vocabulary—Travel and Transportation
  - Accurately produce ASL vocabulary related to travel and transportation
- 3. Advanced Receptive Fingerspelling Techniques
  - Examine and apply advanced receptive fingerspelling techniques
- 4. Noun/Verb Pairs
  - Analyze and interpret the grammatical feature of noun/verb pairs in ASL
- 5. Quiz
  - Examine key components of storytelling in the Deaf community
  - Identify and produce basic signs related to travel and transportation
  - Identify and apply advanced receptive fingerspelling techniques
  - Analyze and interpret the grammatical feature of noun/verb pairs in ASL
- 6. Travel and Transportation
  - Accurately produce and comprehend ASL vocabulary
  - Accurately produce and comprehend ASL letters and numbers in specialized contexts
  - Demonstrate essential grammatical components of ASL
  - Demonstrate mastery of ASL vocabulary and grammar

# 3. Modifying for Degree

- 1. Deaf Poetry
  - Examine and explain the characteristics of Deaf poetry
- 2. Signed Vocabulary—Weather and Feelings
  - Accurately produce ASL vocabulary related to weather and feelings
- 3. Signing Symbols
  - Accurately produce signs for symbols in ASL
- 4. Modifying Signs for Degree
  - Analyze and interpret how to modify signs for degree in ASL
- 5. Quiz
  - Examine the characteristics of Deaf poetry
  - Identify and produce basic signs related to weather and feelings
  - Identify and produce symbols in ASL
  - Analyze and interpret how to modify signs for degree in ASL
- 6. Weather Modification
  - Accurately produce and comprehend ASL vocabulary
  - Accurately produce and comprehend ASL letters and numbers in specialized contexts
  - Demonstrate essential grammatical components of ASL
  - Demonstrate mastery of ASL vocabulary and grammar

## 4. Special Names and Lists

- 1. Deaf Art
  - Examine and explain general and specific types of Deaf artwork
- 2. Signed Vocabulary—Chores and Errands
  - Accurately produce ASL vocabulary related to chores and errands
- 3. Special Numbers and Lists

- Examine and apply methods of producing signs for ordinal numbers
- 4. Listing on Non-Dominant Hand
  - Analyze and interpret how to list on the non-dominant hand
- 5. Quiz
  - Examine the concept of Deaf art
  - Identify and produce basic signs for chores and errands
  - Identify and produce signs for ordinal numbers
  - Analyze and interpret how to list on the non-dominant hand
- 6. Non-Dominant Listing
  - Accurately produce and comprehend ASL vocabulary
  - Accurately produce and comprehend ASL letters and numbers in specialized contexts
  - Demonstrate essential grammatical components of ASL
  - Demonstrate mastery of ASL vocabulary and grammar

## 5. Events throughout Time

- 1. Deaf Music
  - Examine and explain features of Deaf music
- 2. Signed Vocabulary—Lifetime Events
  - Accurately produce ASL vocabulary related to lifetime events
- 3. Ages
  - Examine and apply methods for producing signs related to ages
- 4. Conceptual Accuracy
  - Analyze and interpret the topic of conceptual accuracy in ASL
- 5. Quiz
  - Examine the features of Deaf music
  - Identify and produce signs related to lifetime events
  - Identify and produce signs related to ages
  - Analyze and interpret the topic of conceptual accuracy in ASL
- 6. Story or Song
  - Accurately produce and comprehend ASL vocabulary
  - Accurately produce and comprehend ASL letters and numbers in specialized contexts
  - Demonstrate essential grammatical components of ASL
  - Demonstrate mastery of ASL vocabulary and grammar

#### **SEMESTER B**

# 1. Continuing ASL and Advanced Techniques

- 1. American Sign Language in Careers
  - Investigate and explain the methods of using American Sign Language in different careers
- 2. Signed Vocabulary—Schedules and Events
  - Accurately produce ASL vocabulary related to schedules and events
- 3. Calendar Number Incorporation
  - Apply methods for signing vocabulary for number incorporated time
- 4. ASL Idioms
  - Analyze and interpret essential ASL idioms
- 5. Quiz
  - Examine how various careers utilize ASL
  - Identify and produce signs for schedules and events
  - Identify and produce signs for number incorporated time
  - Analyze and interpret essential ASL idioms

- 6. Number Incorporation
  - Accurately produce and comprehend ASL vocabulary
  - Accurately produce and comprehend ASL letters and numbers in specialized contexts
  - Demonstrate essential grammatical components of ASL
  - Demonstrate mastery of ASL vocabulary and grammar

## 2. Around the House and in the Schools

- 1. More about Deaf and Hard of Hearing Education
  - Investigate and explain the characteristics of Deaf and hard of hearing education as a career
- 2. Signed Vocabulary Around the House
  - Accurately produce ASL vocabulary related to being around the house
- 3. Nominal Numbers and Combinations
  - Produce signs for nominal numbers and number/letter combinations in ASL
- 4. Registers in ASL
  - Analyze and interpret registers in ASL
- 5. Quiz
  - Examine key components of Deaf and hard of hearing education
  - Identify and produce signs related to being around the house
  - Identify and produce signs related to nominal numbers and number/letter combinations
  - Analyze and interpret registers in ASL
- 6. License Plate and Bar Code
  - Accurately produce and comprehend ASL vocabulary
  - Accurately produce and comprehend ASL letters and numbers in specialized contexts
  - Demonstrate essential grammatical components of ASL
  - Demonstrate mastery of ASL vocabulary and grammar

# 3. Interpreting Options and Advanced Fingerspelling

- 1. More about Sign Language Interpreting
  - Investigate and explain the characteristics of sign language interpreting as a career
- 2. Signed Vocabulary—Making Requests
  - Accurately produce ASL vocabulary related to making requests
- 3. Lexicalized Fingerspelling
  - Apply methods for Lexicalized Fingerspelling in ASL
- 4. Temporal Aspects
  - Analyze and interpret temporal aspects in ASL
- 5. Quiz
  - Examine sign language interpreting as a career choice
  - Identify and produce signs related to making requests and commands
  - Identify and produce signs using Lexicalized Fingerspelling
  - Analyze and interpret temporal aspects in ASL
- 6. Making Requests
  - Accurately produce and comprehend ASL vocabulary
  - Accurately produce and comprehend ASL letters and numbers in specialized contexts
  - Demonstrate essential grammatical components of ASL
  - Demonstrate mastery of ASL vocabulary and grammar

# 4. Audiological Options and Advanced Situations

- 1. More about Audiology and Hearing
  - Investigate and explain the characteristics of audiology and speech language pathology as careers
- 2. Health and Emergencies -Signed Vocabulary
  - Accurately produce ASL vocabulary related to health and emergencies
- 3. Math and Money
  - Produce signs for math and money
- 4. Body-Verb Agreement Signs
  - Analyze and interpret body-verb agreement signs
- 5. Quiz
  - Examine audiology and speech-language pathology as career choices
  - Identify and produce signs related to health and emergencies
  - Identify and produce signs related to math and money
  - Analyze and interpret body-verb agreement signs
- 6. The Flu
  - Accurately produce and comprehend ASL vocabulary
  - Accurately produce and comprehend ASL letters and numbers in specialized contexts
  - Demonstrate essential grammatical components of ASL
  - Demonstrate mastery of ASL vocabulary and grammar

# 5. Other Sign Languages and Systems

- 1. Other Signing Systems in the United States
  - Investigate and explain the various sign language systems used in the United States
- 2. Signed Vocabulary—Places around the World
  - Accurately produce ASL vocabulary related to places around the world
- 3. Initialized Signs
  - Apply methods for producing initialized signs
- 4. Rhetorical Questions in ASL
  - Analyze and interpret rhetorical questions in ASL
- 5. Quiz
  - Examine several different signing systems used throughout the United States
  - Identify and produce signs related to places around the world
  - Identify and produce initialized signs
  - Analyze and interpret rhetorical questions in ASL
- 6. Rhetorical Sentence Structure
  - Accurately produce and comprehend ASL vocabulary
  - Accurately produce and comprehend ASL letters and numbers in specialized contexts
  - Demonstrate essential grammatical components of ASL
  - Demonstrate mastery of ASL vocabulary and grammar

Pennwood Cyber Charter School Application

# Spanish I



## Spanish I

**Course Instructional Time:** 170 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

## **Course Summary:**

Spanish I A is a beginning level course that will introduce the student to a variety of areas of the Spanish language. In this course, the student will learn listening, speaking, reading, and writing skills through interesting and engaging activities. This course is organized into five topics including greetings, the date, weather, time, and colors. The student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Elements of the Spanish-speaking world and culture appear throughout the course, including people, geographical locations, and histories.

## **Course Outline**

## 1. ¡Bienvenidos!

- 1. Welcome!
  - Apply knowledge of how to greet people at different times of day and introduce yourself to others
  - Apply knowledge of the Spanish alphabet to spell and pronounce words
  - Identify why it is valuable to learn about the Spanish language and culture
  - Explain where the Spanish language comes from and how it has changed over time

## 2. Mis clases

- Identify things commonly found in a traditional classroom
- Identify parts of the human body
- Apply knowledge of how to ask for help
- Identify relevant geographical and cultural characteristics of Spain
- Examine the different ways the Spanish language is spoken in different regions around the world

#### Let's Count!

- Identify numbers to count, tell time, and talk about the day and date
- Apply knowledge of written and spoken language about the weather and seasons
- Examine the weather and seasonal characteristics of Spanish-speaking countries
- Identify the differences between formal and informal speech
- Identify Spanish cognates and their usefulness for learning a language

## 2. Lo que nos gusta

- 1. Mis actividades
  - Identify and describe activities people like and don't like to do

- Analyze common activities of high school students
- Examine famous soccer academies within the Spanish-speaking world

## 2. Mis amigos

- Apply knowledge of expressing like/dislike of common activities
- Identify distinct musical styles and dances from throughout the Spanish-speaking world
- Examine how friends spend time together and activity preferences for the summer and winter

## 3. ¡Me gusta!

- Apply knowledge of infinitives and their endings
- Identify important places and things to do in Central Spain
- Examine Mexico City for its popular activities and cultural or historical sites

## 4. ¿Me gusta o no me gusta?

- Identify patterns of negation and write negative sentences
- Apply knowledge of expressing agreement and disagreement
- Compare and contrast characteristics of public squares in the Spanish-speaking world with U.S. malls
- Examine the culture and activities of Argentina

# 5. Repaso de Lo que nos gusta

- Recall vocabulary, expressions, and grammar concepts
- Recall popular activities in the Spanish-speaking world, including artistic pursuits, dances, and games
- Examine the cultural importance of conversation in the Spanish-speaking world, including meeting at outdoor cafés and the concept of sobremesa
- 6. Lo que nos gusta Unit Test

#### 3. ¿Cómo somos?

- 1. ¿Cómo soy?
  - Apply knowledge of vocabulary related to personality traits
  - Analyze the cultural concept of friendship and family within the Spanish-speaking world
  - Examine the culture and popular activities of Cuba

## 2. ¿Cómo eres?

- Describe what you and others are like using personality trait vocabulary
- Compare the Salsa dance of Latin America, the U.S., and around the world
- Examine Latin American artists' personalities such as Fernando Botero, David Alfaro Sigueiros, and Pablo Picasso
- Examine the Bronx Museum of the Arts, as well as Spanish-speaking cultural centers in New York City

## 3. Adjetivos y artículos

- Apply knowledge of adjectives and definite/indefinite articles
- Examine the Pan American Games
- Identify various characteristics of the Galápagos Islands

#### 4. Para usar los adjetivos

- Apply knowledge of word order and the placement of adjectives
- Identify cultural and personal characteristics of people in Uruguay
- Examine the life and works of María Nsué Angüe, an Equatorial Guinean writer
- 5. Review of ¿Cómo somos?

- Recall previously learned vocabulary, expressions, and grammar concepts
- Identify the cultural significance in the game of dominoes throughout the Spanishspeaking world.
- Examine the folktale "El Cadejo" from El Salvador
- 6. ¿Cómo somos? Unit Test

# 4. Mis clases

- 1. Mi día
  - Apply knowledge of vocabulary related to school subjects and supplies
  - Compare and contrast the characteristics of school s in various Spanish-speaking countries with those of schools in the United States
  - Examine the daily activities of a Mexican art class

#### 2. Las clases

- Apply knowledge of vocabulary related to school schedules and subject descriptions
- Examine the use of the 24-hour clock in the Spanish-speaking world
- Compare and contrast a Puerto Rican school in terms of building, routine, and schedule, with that of a school in the United States

# 3. Los pronombres

- Describe the characteristics of different people using subject pronouns
- Examine the daily activities of a Miami, Florida high school
- Examine the life and work of Gabriela Mistral, a Nobel Prize winning Chilean writer

#### 4. En la clase

- Apply knowledge of -ar verbs to talk and write about what you and others study and do
- Examine the life and achievements of a teacher from Bolivia
- Identify popular places and things to do in Bolivia

## 5. Repaso de Mis clases

- Recall vocabulary, expressions, and grammar concepts
- Compare and contrast a graduation ceremony at a Puerto Rican school with a graduation ceremony in the United States
- Examine cultural characteristics of Honduras, including career options and continuing education after high school
- 6. Mis clases Unit Test

#### 5. A estudiar

- 1. Aquí estudio
  - Apply knowledge of vocabulary related to traditional classroom furniture and supplies
  - Compare and contrast the amount of time that students spend in school each year in the Spanish-speaking world with that of students in the Los Estados Unidos.
  - Examine alternative learning environments, including the rural areas of México

### ¿Dónde está?

- Describe where objects in a traditional classroom are located
- Apply knowledge of traditional classroom and laboratory vocabulary, including the location of specific objects in a Colombian high school
- Examine advanced educational programs in high schools of the Spanish-speaking world
- Examine Mexican festivals and extracurricular high school activities

# 3. El verbo estar

- Apply knowledge of the verb estar to talk and write about the location of people and things
- Examine summer camping in the Amazon rain forest
- Examine the life and work of Nobel Prize for Chemistry winner, Dr. Mario Molina

## 4. El plural

- Identify and describe the location of objects using the plurals of nouns and articles
- Examine famous leaders from the independence movements in Latin America
- Identify famous Spanish musicians, including Manuel de Falla, Manuel M. Ponce, and Ernesto Lecuona

# 5. Repaso de A estudiar

- Recall vocabulary, expressions, and grammar concepts
- Compare and contrast the content and workload of history classes taught in the Spanish-speaking world with that of classes in the United States
- Analyze Juan Ramón Jiménez's famous prose piece, Platero y yo
- 6. A estudiar Unit Test

#### 6. Mis comidas

- 1. El desayuno y el almuerzo
  - Apply knowledge of vocabulary related to food and drinks for breakfast and lunch
  - Examine traditional meals and meal schedules within the Spanish-speaking world
  - Identify meal-time manners, family time, and the importance of conversation within the Spanish-speaking world

# 2. ¡Me gusta!

- Apply knowledge to express frequency and preferences
- Identify popular snacks within the Spanish-speaking world
- Examine the chile and other staple foods of Mexico

## 3. Comer y beber

- Apply knowledge of the present tense forms of -er and -ir verbs
- Compare and contrast traditional eating habits within the Spanish-speaking world with those of the United States
- Examine the use of rice in various meals throughout the Spanish-speaking world

#### 4. ¡Me encanta!

- Apply knowledge to express food preferences using me gustan and me encantan
- Compare and contrast Chilean Sangúches with sandwiches and hamburgers in the United States
- Analyze still life paintings by Fernando Botero and other famous painters, as well as the work of artists of other mediums

## 5. Repaso de Mis comidas

- Recall vocabulary, expressions, and grammar concepts
- Examine celebratory foods in meals within the Spanish-speaking world, such as lechón, paella, and asados
- Examine the life and work of Bernardo Alberto Houssay, a Nobel Prize in Medicine winner from Argentina
- 6. Mis comidas Unit Test

## 7. Comida y salud

1. La comida y la salud

- Apply knowledge of vocabulary related to food and drink for dinner and dessert
- Examine the popular meals of Perú
- Identify Peruvian food and chefs in the United States and around the world

# 2. Comida y ejercicio

- Apply knowledge of vocabulary related to food choices and healthy activities
- Compare and contrast popular beverages throughout the Spanish-speaking world, such as soda, shakes, and juices, to those of the United States
- Examine annual international marathons in major cities of the Spanish-speaking world

#### 3. Para estar bien

- Apply knowledge of the plural forms of adjectives
- Compare and contrast the connections between nutrition and sports within the Spanishspeaking world with those in the United States
- Examine the use of herbal remedies throughout the Spanish-speaking world

#### 4. El verbo ser

- Apply knowledge of the verb ser
- Compare and contrast an asado in Chile and Colombia with a barbeque in the United States
- Examine cultural preferences for walking as a means of getting around throughout the Spanish-speaking world

# 5. Repaso de Comida y Salud

- Recall vocabulary, expressions, and grammar concepts
- Examine the popular activity of mountain climbing in Chile
- Identify healthy dessert options within the Spanish-speaking world
- 6. Comida y salud Unit Test

## 8. Mi tiempo libre

- 1. ¿Me quedo en casa?
  - Apply knowledge of vocabulary related to social and leisure activities
  - Examine popular leisure activities throughout the Spanish-speaking world, such as having picnics, going to the movies, and visiting museums
  - Identify things to do when venturing outside major cities to neighboring small towns

#### 2. ¿Cuándo?

- Apply knowledge of written and spoken language related to schedules and places to go for leisure
- Examine popular weekend activities in the Spanish-speaking world
- Identify popular places to go swimming throughout the Spanish-speaking world

#### 3. ¿Adónde vas?

- Apply knowledge of how to use the verb ir
- Compare and contrast the national libraries of Mé xico, Spain, and Perú with the Library of Congress in the United States
- Identify popular places to shop throughout the Spanish-speaking world

#### 4. Preguntas

- Apply knowledge of how to ask questions
- Analyze the different variants of the Spanish language used throughout the Spanishspeaking world
- Examine the cultural connections between literature and music

- 5. Repaso de Mi tiempo libre
  - Recall vocabulary, expressions, and grammar concepts
  - Analyze the traditional sport of la jineteada gaucha as played in Uruguay, Paraguay, and Argentina
  - Compare and contrast the experience of going to the movies in Honduras with that of the United States
- 6. Mi tiempo libre Unit Test

## 9. Vamos a jugar

- 1. Con mis amigos
  - Apply knowledge of vocabulary related to sports, other after-school activities, expressions for telling when something happens, and extending, accepting, and declining event invitations
  - Examine the role of sports throughout the Spanish-speaking world
  - Examine famous sports figures in the Spanish-speaking world

# 2. ¿Te gustaría?

- Apply knowledge of ir + a + infinitive phrases, and the verb jugar
- Examine the concept of being on time when invited to participate in events or activities
- Examine the significance and history of baseball in the Caribbean and Central American countries

# 3. ¿Qué vas a hacer?

- Recall key vocabulary and grammar concepts
- Examine the popular sports of fútbol in the Spanish-speaking world, and American football
- Examine the experience of camping near Poás Volcano National Park
- 4. Vamos a jugar Unit Test

#### 10. Semester Test

- 1. Semester Review: Repaso
  - Review semester vocabulary related to greetings, activities, words used to describe people, school and classroom items, food, places for leisure activities, and playing sports
  - Review semester gramatical concepts related to asking for help, infinitives, adjectives, subject pronouns, plurals of nouns and articles, regular –ar, –er, and –ir verb conjugations, and ir + a + infinitive phrases
  - Review semester cultural information including characteristics of the Spanish language, popular activities, Pan American games, the diversity of meal schedules, baseball in the Caribbean, and other leisure activities throughout the Spanish-speaking world
- 2. Semester Assessment

#### Semester B

Course Summary: Spanish I B is a beginning level course that will introduce the student to a variety of areas of language learning. In this course, the student will learn listening, speaking, reading, and writing skills through a variety of activities. This course is organized into five topics including greetings, the date, weather, time, and colors. The student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety

of learning styles in mind. Elements of the Spanish-speaking world and culture appear throughout the course, including people, geographical locations, and histories.

# 1. Una Fiesta de Cumpleaños

- 1. Mi cumpleaños
  - Apply knowledge of vocabulary related to family members, pets, telling ages, party decorations, and celebration activities
  - Examine birthday celebration traditions and activities in Lima, Perú
  - Examine the life and work of Teodoro Núñez Ureta, a celebrated Peruvian painter and writer

#### 2. El verbo tener

- Apply knowledge of how to use the verb tener
- Examine how Spanish-speaking families celebrate together
- Examine the demographics and common attractions of Cuzco, Perú

# 3. Los adjetivos posesivos

- Apply knowledge of how to use possessive adjectives
- Compare and contrast the celebrations of birthdays and name days in Latin America with those of the United States
- Examine Peruvian quinceañera celebration activities, decorations, and traditions

#### 2. Vamos al restaurante

- 1. En el restaurante
  - Apply knowledge of vocabulary related to describing people and things, food and table settings, eating out, and expressing needs
  - Examine a Paraguayan Mother's Day celebration of going out to eat in Asunción
  - Examine Paraguay's traditional dishes and desserts

#### 2. El verbo venir

- Apply knowledge of how to use the verb venir
- Examine the experience of eating out in Asunción, including traditional restaurants, churrascarias, and international fast food
- Examine Paraguay's second official language, Guaraní
- 3. Los verbos ser y estar
  - Apply knowledge of the verbs ser and estar
  - Examine a visit to Ñacunday National Park with family or friends
  - Examine the life and work of Paraguayan artisan Rosa Brítez to gain insight about traditional Guaraní language and pottery

# 3. Me gusta mi dormitorio

- 1. Me gusta mi dormitorio
  - Apply knowledge of vocabulary related to bedroom items, electronic equipment, colors, describing, comparing, and contrasting.
  - Compare bedroom characteristics of Bolivia, to that of the U.S.
  - Examine Bolivia's traditional use of brightly colored textiles used in bedroom decor.

#### 2. Comparaciones

Apply knowledge of how to make comparisons and to use the superlative.

- Apply knowledge of how to use stem-changing verbs including poder and dormir.
- Examine traditional music styles and common practices of Bolivian culture.
- Examine various activities and characteristics of the Alasitas Fair: Aymara Festival of Abundance, in La Paz.
- 3. Me gusta mi dormitorio Unit Test

#### 4. En Nuestra Casa

- 1. Mi casa
  - Apply knowledge of vocabulary related to houses, apartments, and rooms
  - Compare colonial housing in Panamá's Casco Viejo to modern living in a downtown apartment
  - Examine the demographics and architecture of Panamá City

## 2. Mis quehaceres

- Apply knowledge of vocabulary related to household chores
- Examine a typical Panamanian countryside house in Santa Fe
- Examine the city and National Park of Santa Fe
- 3. ¡Arregla tu cuarto!
  - Apply knowledge of affirmative tú commands
  - Examine traditional Panamanian cuisine
  - Examine the Museo de la Sal y del Azúcar (Museum of Salt & Sugar) in Aguadulce,
     Panamá
- 4. ¿Qué estás haciendo?
  - Apply knowledge of the present progressive tense
  - Examine other traditional houses of Panamá, including tambos and quinchas
  - Examine the cultural significance of the use of traditional Panamanian masks called diablicos
- 5. Repaso de "En nuestra casa"
  - Recall vocabulary, expressions, and grammar concepts
  - Examine the shopping industry of La Ciudad de Panamá
  - Examine the life and work of Spanish historian Gonzalo Fernández de Oviedo y Valdés, including his role in the Spanish colonization of the Caribbean
  - Describe the cultural importance of conversation in the Spanish-speaking world, including meeting at outdoor cafes and the concept of sobremesa
- 6. En nuestra casa Unit Test

## 5. En la Tienda

- 1. Compramos
  - Apply knowledge of vocabulary related to shopping and clothing
  - Examine the demographics, geography, and cultural history of El Salvador
  - Examine popular places to shop in San Salvador, El Salvador
- 2. El abrigo cuesta...
  - Apply knowledge of vocabulary related to prices and numbers
  - Examine Maya numerals
  - Examine typical Salvadorian clothes and fashion
- 3. Quiero comprar
  - Apply knowledge of the stem-changing verbs pensar, querer, and preferir
  - Examine the demographics, geography, and cultural history of Honduras

Examine Maya culture in Central America, including the Site of Copán in Honduras

### 4. Esta Ropa

- Apply knowledge of demonstrative adjectives
- Examine the experience of buying handcrafted gifts, including mahogany carved pieces and jade jewelry
- Examine the Fortaleza de San Fernando de Omoa and its role as Honduras' main coastal protection against pirating

## 5. Repaso de En la Tienda

- Recall vocabulary, expressions, and grammar concepts
- Examine the city of Suchitoto, home of Lake Suchitlán
- Examine the life and work of Salvadoran sculptor Enrique Salaverría
- 6. En la tienda Unit Test

# 6. Comprar un regalo

- 1. Comprar en Buenos Aires
  - Apply knowledge of vocabulary related to stores, online shopping, gifts, and clothing accessories.
  - Examine popular places to shop in Buenos Aires
  - Examine the various theaters found in Buenos Aires

### 2. La semana pasada

- Apply knowledge of vocabulary related to expressions used to describe past events
- Examine the shopping industry of Córdoba, Argentina, including the EXICAL International Footwear Exposition
- Examine the unique crafts and gifts of La Ruta de los Artesanos in the city of Mendoza,
   Argentina

# 3. ¿Qué compraron?

- Apply knowledge of the preterite of verbs ending in –ar, -car, and –gar.
- Examine the Iguazú National Park of Argentina
- Examine the life and music of Ástor Piazzolla, a famous tango composer

#### 4. ¡Lo compré!

- Apply knowledge of direct object pronouns
- Identify popular souvenirs for Argentinian vacations
- Examine traditional Argentinian cuisine, including its Italian influence

# 5. Repaso de Comprar un regalo

- Recall vocabulary, expressions, and grammar concepts
- Examine Anticuarios (antiques shops) and librerías de viejo (old and second hand bookshops) in Buenos Aires
- Examine the lives and literary works of Horacio Quiroga, a playwright, poet, and short story writer, and Alfonsina Storni, a celebrated poet
- 6. Comprar un regalo Unit Test

#### 7. Mis vacaciones

- 1. ¿En autobús o en tren?
  - Apply knowledge of vocabulary related to vacation destinations and activities and modes of transportation
  - Examine the demographics, geography, and cultural history of the Dominican Republic
  - Examine the various ways of traveling within the Dominican Republic

## 2. Me gustó el zoológico

- Apply knowledge of vocabulary related to attractions, parks, animals, and expressions to talk about a trip or vacation
- Identify the wildlife of the Dominican Republic
- Examine the life and work of Eugenio De Jesús Marcano Fondeur, a celebrated Dominican biologist

# 3. ¿Qué viste?

- Apply knowledge of how to use the preterite tense of -er and -ir verbs, including the verb ir
- Examine the Dominican Republic's coastal region, including its beaches and coral reefs
- Examine the Taíno culture exhibit at the Museo Arqueológico Regional Altos de Chavón
- 4. ¿Visitaste a la amiga de tu mamá?
  - Apply knowledge of how to use the personal a
  - Examine the popular activity of horseback riding in Punta Cana
  - Examine traditional Dominican cuisine and its Taíno, Spanish, and African influences

## Repaso de Mis vacaciones

- Recall previously learned vocabulary, expressions, and grammar concepts
- Examine the popular activity of visiting Puerto Plata, known for its amber museum, crafts, and jewelry
- Examine the life and work of Salomé Ureña de Henríquez, a Dominican poet and pedagogist
- 6. Mis vacaciones Unit Test

## 8. Ayudar a los demás

- 1. Gente que ayuda
  - Apply knowledge of vocabulary related to recycling, places in the community, and volunteer work
  - Examine the demographics, geography, and cultural history of México
  - Discover the concept of recycling and various recycling programs in México
- 2. El presente del verbo decir
  - Apply knowledge of how to use the present tense of decir
  - Examine the geology of México, including its faultlines and seismic activity
  - Examine various disaster relief volunteer programs in México
- 3. Pronombres de objeto indirecto
  - Apply knowledge of how to use indirect object pronouns
  - Examine the culture and lifestyle of the indigenous people of México
  - Examine the YMCA program in México
- 4. El pretérito de hacer y de dar
  - Apply knowledge of how to use the preterite tense of hacer and dar
  - Identify the importance of supporting the work of non-profit organizations
  - Examine the life and work of activist writer Elena Poniatowska
- 5. Repaso de Ayudar a los demás
  - Recall vocabulary, expressions, and grammar concepts
  - Examine environmentalist volunteer groups and programs in México, including Servicio
     Voluntario Ambientalista and Secretaría del Medio Ambiente
  - Examine the life and work of impressionist painter Joaquín Clausell

6. Ayudar a los demás Unit Test

# 9. La televisión y las películas

- 1. Mis programas favoritos
  - Apply knowledge of vocabulary related to television programs and movies
  - Examine autonomous communities with national and regional television programs
  - Examine national and public TV channels in España

# 2. ¿Ves telenovelas?

- Apply knowledge of vocabulary related to words and expressions used to give opinions
- Examine Latin American telenovelas and other series based on literature
- Examine the life and work of Emilia Pardo Bazán, a Galician novelist, journalist, essayist, critic, and activist

#### 3. Acabar de + infinitivo

- Apply knowledge of how to use acabar de + infinitive phrases
- Examine movies presented on TV in Spain
- Examine the life and work of Luis Buñuel, a notable Spanish cinema director

## 4. Gustar y verbos similares

- Apply knowledge to use gustar and similar verbs
- Examine festivals related to the modern cinema of Spain
- Examine the Academia de las Artes y las Ciencias Cinematográficas de España and the Goya Awards given for cinema
- Examine the life and work of Fernando Fernán-Gómez, a Spanish writer, poet, actor, screenwriter, and film and theater director
- 5. Repaso de ¿Te gusta la televisión? ¿Y las película
  - Recall previously learned vocabulary, expressions, and grammar concepts
  - Examine how filmmakers attempt to reach an international audience
  - Identify the Oscar awards given for Spanish films, actors, and directors
- 6. La televisión y las películas Unit Test

## 10. Computadoras y tecnología

- 1. Usamos la tecnología
  - Apply knowledge of vocabulary related to communication, computer related activities, and internet and digital products
  - Examine the technology and institutes that characterize Silicon Valley, California
  - Examine the life and work of Alfredo Quinones-Hinojosa, a physician, author, and researcher

# 2. Más verbos españoles

- Apply knowledge of the present tense of pedir and servir and how to use the verbs saber and conocer
- Examine how to prepare for a technological career, including the role of Spanish speakers
- Examine the life and work of Luis Wálter Alvárez, an experimental physicist, inventor, professor, and winner of the Nobel Prize in Physics
- 3. Repaso de Computadoras y tecnología
  - Recall vocabulary, expressions, and grammar concepts
  - Examine the aerospace centers in Houston, Texas and Cape Canaveral, Florida
  - Examine Ellen Ochoa and José Moreno Hernández, notable space engineers

4. Computadoras y tecnología Unit Test

#### 11. Semester Test

- 1. Semester Review: Repaso
  - Review semester vocabulary terms and expressions related to family, the home, shopping, recycling, and entertainment.
  - Review semester grammar concepts including possessive adjectives, stem- changing verbs, commands, the preterite tense, and acabar de + infinitive expressions.
  - Review cultural characteristics of the Spanish-speaking world, including family traditions, dining out, bedroom decor, autonomous communities, and supportive resources.
  - Review places in the Spanish-speaking world, including the Panama Canal, El Salvador, México, and Iguazú National Park.
- 2. Semester Assessment

# Spanish II



<u> Spariisii</u>

Course Instructional Time: 170 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

#### **Course Summary:**

This course builds on the skills the student learned in Spanish I. In this course, the student will learn listening, speaking, reading, and writing skills through a variety of activities. This course is organized into five topics including daily routine, animals, hobbies, the body, and descriptions. The student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Elements of the Spanish-speaking world and culture appear throughout the course, including people, geographical locations, and histories.

#### **Course Outline**

#### 1. ¿Cómo soy?

- 1. Yo soy . . .
  - Describe yourself and others using adjectives and the verb ser
  - Apply knowledge of telling where you and other people are from
  - Examine the demographics, geography, and general history of Central America
- 2. ¿Qué te gusta hacer?
  - Apply knowledge of talking about what you and others do for leisure activities or hobbies
  - Apply knowledge of asking questions and talking in terms of frequency
  - Examine Nicaraguan cultural traditions and celebration activities
  - Examine the life and literature of Nicaraguan poet, Rubén Darío
- 3. Mi tiempo libre
  - Recall vocabulary, expressions, and grammar concepts
  - Describe tourist activities common to Nicaragua
  - Examine the ethnic groups and languages throughout Nicaragua

#### 2. ¿Cómo estudias?

- 1. ¡A aprender!
  - Apply knowledge of vocabulary related to traditional school activities, objects, supplies, and rules

- Analyze the U.S-Mexican border region's demographics and the prevalence of bilingual or full-immersion schools
- Examine the Mexican-American War and the Treaty of Guadalupe Hidalgo

#### 2. Verbos con cambio radical

- Apply knowledge of present-tense stem-changing verbs
- Examine the demographics and bilingualism of the Southern California region
- Examine the historic El Camino Real, or California Mission Trail, and its significance

#### 3. Palabras afirmativas

- Apply knowledge of affirmative words
- Examine the demographics and bilingualism of the Southern Texas region
- Examine the life achievements of famous Hispanic baseball and basketball players in Texas and other states

# 4. Palabras negativas

- Apply knowledge of negative words
- Examine the demographics and bilingualism of the Southern Arizona region
- Analyze the cultural importance of exhibiting good manners throughout the Spanish-Speaking World

# 5. Repaso de ¿Cómo estudias?

- Recall vocabulary, expressions, and grammar concepts
- Examine the demographics and architecture of New Mexico
- Examine the Albuquerque International Balloon Festival and other popular activities
- 6. ¿Cómo estudias? Unit Test

# 3. Después de clases

- 1. Las actividades extracurriculares
  - Apply knowledge of vocabulary related to extracurricular activities, including sports, music, and drama
  - Examine the general demographics, geography, and environment of Central American countries with a focus on Guatemala
  - Examine common extracurricular activities of Central America including the National Intercultural Youth Orchestra

#### 2. Para hacer comparaciones

- Apply knowledge of making comparisons
- Examine the demographics, geography, and environment of Honduras and Nicaragua
- Examine Honduran punta music and dance style

#### 3. Saber y conocer

- Apply knowledge of the verbs saber and conocer
- Examine the demographics, geography, and environment of Costa Rica and El Salvador
- Examine the historic National Theatres of Costa Rica and El Salvador

#### 4. ¿Cuánto tiempo hace?

- Apply knowledge of using the verb hacer with expressions of time
- Examine the demographics, geography, and environment of Panamá, including its popular activity of playing chess
- Examine the history and importance of the Panamá Canal

# 5. Repaso de Después de clases

Recall vocabulary, expressions, and grammar concepts

- Compare and contrast how today's youth use the Internet in Central America and in the United States
- Examine the popular activity of cheerleading in Central America
- 6. Después de clases Unit Test

#### 4. Para prepararse

- 1. Cosas que hago
  - Apply knowledge of vocabulary related to daily routines and getting ready for an event
  - Examine the demographics, geography, and environment of Cuba
  - Examine a guateque campesino, a traditional Cuban celebration event

#### 2. Mi día

- Apply knowledge of reflexive verbs
- Examine the city and culture of La Habana, Cuba through the eyes of a dance student
- Examine the cultural dance event called Habana Vieja: Ciudad en movimiento (Old Havana: City in Motion)
- 3. Los verbos ser y estar
  - Apply knowledge of the verbs ser and estar
  - Examine the culture and popular tourist attractions of Santiago and La Casa de la Trova,
     Cuba
  - Examine the life and work of Cuban national hero José Martí
- 4. Los adjetivos posesivos
  - Apply knowledge of possessive adjectives
  - Examine the luxury beach resort town of Cayo Santa María, Cuba
  - Examine common methods of transportation in La Habana, Cuba
- 5. Repaso de Para prepararse
  - Recall vocabulary, expressions, and grammar concepts
  - Examine the Cuban Sandwich, a popular meal in Florida
  - Examine Cuba's national and convertible pesos, the two official currencies
- 6. Para prepararse Unit Test

#### 5. **De compras**

- 1. ¡Una ganga!
  - Apply knowledge of vocabulary related to shopping and clothing
  - Examine the demographics, geography, and environment of Puerto Rico
  - Compare and contrast the traditional Puerto Rican celebration of Carnaval Ponceño (Ponce Carnival) with the Mardi Gras celebration in New Orleans
- 2. El pretérito de verbos regulares
  - Apply knowledge and use the preterite of regular verbs
  - Examine the shopping and fashion scene in Puerto Rico, including major malls and Fashion Week
  - Examine the historic city of San Juan, Puerto Rico and its popular Museo de las Américas
- 3. Los adjetivos demostrativos
  - Apply knowledge and use demonstrative adjectives
  - Examine the life and work of José Francisco Salgado, a famous Puerto Rican astronomer, experimental photographer, and visual artist
  - Examine the U.S.-Puerto Rico relationship, including its two official languages and citizen migrations

- 4. El uso de los adjetivos como sustantivos
  - Apply knowledge and use adjectives as nouns
  - Examine the demographics, geography, and environment of the Dominican Republic and its capital city, Santo Domingo
  - Examine the shopping industry of Santo Domingo, including its traditional street markets and modern malls
- 5. Repaso de De compras
  - Recall vocabulary, expressions, and grammar concepts
  - Examine the cultural significance of baseball in Santo Domingo
  - Identify appropriate attire used for various cultural activities
- 6. De compras Unit Test

# 6. Ayer hice...

- 1. ¡A practicar!
  - Apply knowledge of vocabulary related to running errands around town, including where people go and what they buy
  - Examine the demographics, geography, and environment of Colombia
  - Examine Colombia's second largest city, Medellín, and its popular events, including the Flower Fair and Desfile de Silleteros
- 2. Los pronombres de objeto directo
  - Apply knowledge of direct object pronouns
  - Describe a trip to Cartagena in Colombia's Caribbean region
  - Examine the life and work of Gabriel García Márquez, including his influence on magical realism in literature
- 3. El pretérito de verbos irregulares (ir, ser)
  - Apply knowledge of using the preterit of irregular verbs ir and ser
  - Compare and contrast pharmacies in Colombia to those in the United States
  - Identify common outdoor activities in Bogotá, including visiting Simón Bolívar Park and skating at El Salitre Sports Unit
- 4. Verbos irregulares del pretérito
  - Apply knowledge of the preterit of irregular verbs tener, estar, and poder
  - Describe walking and shopping for crafts and souvenirs in Bogotá
  - Examine the art and culture of Bogotá displayed at the Colombian National Museum and Gold Museum
- 5. Repaso de "Ayer hice..."
  - Recall vocabulary, expressions, and grammar concepts
  - Examine the oldest film festival in Latin America, the Cartagena Film Festival
  - Examine the cumbia and vallenato music styles of Colombia
- 6. Ayer hice... Unit Test

# 7. ¿Cómo llegamos?

- 1. ¿Dónde está?
  - Apply knowledge of vocabulary related to driving and the giving or receiving of driving advice and directions
  - Examine the demographics, geography, and environment of Venezuela
  - Examine cultural places to visit in Caracas, Venezuela's capital and largest city

- Examine the life and work of famous Venezuelan public figures, including Jacinto Convit García, Andrés Bello, and Milka Duno
- 2. Más pronombres de objeto directo
  - Apply knowledge and use the direct object pronouns me, te, and nos
  - Describe a trip to Ávila Mountain by cable car
  - Examine the life and work of Jacinto Convit García, a famous Venezuelan physician and scientist
- 3. Imperativos irregulares afirmativos (tú)
  - Apply knowledge and use irregular affirmative tú commands
  - Examine Venezuelan traditions, including the Dancing Devils of Yare
  - Examine cultural and historical characteristics of the colonial city of Santa Ana de Coro,
     Venezuela
- 4. Presente progresivo: formas irregulares
  - Apply knowledge and use the present progressive tense of irregular verb forms
  - Describe a trip to Canaima National Park and its cultural importance
  - Examine the life and work of Andrés Bello, a leading Latin American intellectual
- 5. Repaso de ¿Cómo llegamos?
  - Recall vocabulary, expressions, and grammar concepts
  - Describe a driving trip from Maracaibo City to Sinamaica Lagoon
  - Examine the life and work of Milka Duno, a Venezuelan female race car driver
- 6. ¿Cómo llegamos? Unit Test

# 8. Niños y niñas de ayer

- 1. Yo jugaba con mis amigos
  - Apply knowledge of vocabulary related to childhood toys and things you used to do
  - Examine the demographics, geography, and environment of Chile
  - Identify common Chilean games for children
- 2. El imperfecto: verbos regulares
  - Apply knowledge and use the imperfect tense of regular verbs
  - Discover Chile's capital and largest city, Santiago, home of the Chilean Museum of Pre-Columbian Art
  - Examine the history and culture of the Mapuches & Quechuas, the indigenous peoples of Chile
- 3. El imperfecto: verbos irregulares
  - Apply knowledge and use the imperfect tense of irregular verbs
  - Compare and contrast common practices for after-school child care in Chile and other
     Spanish-Speaking countries with those of the United States
  - Examine the life and work of Claudio Bravo Camus, a famous Chilean painter
- 4. Pronombres de objeto indirecto
  - Apply knowledge and use indirect object pronouns
  - Examine cultural characteristics of Valparaíso, the home city of Pablo Neruda
  - Discover the life and work of José Donoso, a celebrated Chilean fiction writer
- 5. Repaso de Niños y Niñas de Ayer
  - Recall vocabulary, expressions, and grammar concepts
  - Examine the lives and accomplishments of notable Chilean women, including Antonia
     Tarragó, Isabel Lebrun, Eloísa Díaz Insunza, and Matilde Throup

- Examine a typical Chilean family celebration
- 6. Niños y niñas de ayer Unit Test

# 9. Los días de fiesta

- 1. Celebramos las fiestas
  - Apply knowledge of vocabulary related to common etiquette and holiday celebrations
  - Examine the demographics, geography, and environment of Spain and its imperial history
  - Compare and contrast common practices for wedding celebrations in Spain with those of the United States

# 2. Pretérito e imperfecto

- Apply knowledge and communicate reciprocal actions, the preterite, and imperfect tense, in order to describe an occasion
- Examine the demographics, geography, and environment of Equatorial Guinea
- Examine the life and work of Juan Tomás Ávila Laurel, an Annobonese writer from Equatorial Guinea
- 3. Repaso de los días de fiesta
  - Recall vocabulary, expressions, and grammar concepts
  - Examine the history and culture of the city of Barcelona, including the famous street Las Ramblas
  - Examine popular leisure activities to do in San Sebastiá n, including going out for tapas and pintxos
- 4. Los días de fiesta Unit Test

#### 10. Semester Review

- 1. Repaso
  - Review semester vocabulary related to terms of frequency, school and extracurricular activities, daily routines, shopping and running errands, giving and receiving driving directions, things you used to do, manners, and customs
  - Review uses of semester grammatical concepts including the verb ser, stem-changing verbs, the verbs saber and conocer, reflexive verbs, the preterite of regular verbs and ir, tener, estar, and poder, the present progressive tense, and the imperfect tense
  - Review the cultural characteristics of Spanish-speaking countries and cities, including Central America, San José and San Salvador, La Habana, Puerto Rico, Valparaíso
  - Review the history of the Spanish Empire, the life and work of Pablo Neruda, Andrés Bello, and Milka Duno, and the music and dance styles of Colombia
- 2. Semester Test

#### Semester B

This course is a continuation of Spanish II A. The student will continue to sharpen his listening, speaking, reading, and writing skills through a variety of activities. This course is organized into five topics including the house, shopping, entertainment, more free time, and trips. The student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, past-tense verbs, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Elements

of the Spanish-speaking world and culture appear throughout the course, including people, geographical locations, and histories.

#### 1. Las noticias

- 1. Nuestros héroes
  - Apply knowledge of vocabulary related to natural disasters, weather extremes, fire, the news, and rescue operations
  - Examine the demographics, geography, main cities, and weather of Uruguay
  - Examine the common occurrence of flooding in Uruguay
- 2. Pretérito e imperfecto
  - Apply knowledge of other uses for the preterite and imperfect tenses
  - Examine the Montevideo fire of 1925 and the work of Uruguay's First National Hero,
     Atilio Pelossi
  - Examine the rescue efforts of the Sistema Nacional de Emergencias de Uruguay
- 3. Pretérito de oír, leer, creer, y destruir
  - Recall vocabulary, expressions, and grammar concepts
  - Examine unusual weather events in Uruguay, including the extra-tropical cyclone in 2012
  - Examine Uruguay's Museo del Observatorio Meteorológico del Colegio Pío

#### 2. Los accidentes

- 1. ¡Me duele!
  - Apply knowledge of vocabulary related to medical treatments, accidents, and body parts
  - Examine Ecuador's demographics, geography, and environment, and downtown Quito's transportation system
- 2. Pretéritos irregulares
  - Apply knowledge and use irregular preterites of venir, poner, and traer
  - Examine the cultural traditions and lifestyles of the indigenous peoples of Ecuador
  - Examine the life and work of Matilde Hidalgo, an Ecuadorian physician and activist
- 3. El imperfecto progresivo y el pretérito
  - Apply knowledge of the imperfect progressive and preterite tenses
  - Examine the life and work of Eugenia María del Pino Veintimilla, a prominent Ecuadorian biologist

# 3. Los deportes en la televisión

- 1. Un campeonato deportivo
  - Apply knowledge of vocabulary related to sporting events, contests, and emotions
  - Examine the demographics, geography, cultural traditions, popular activities and locations, and history of the Colombian-Venezuelan border region
  - Examine the border cities of San Cristóbal, Venezuela and San José de Cúcuta, Colombia
- 2. Reflexivos y pretérito de verbos en -ir
  - Apply knowledge of other reflexive verbs and the preterit of -ir stem-changing verbs
  - Examine common sporting events in the Colombian-Venezuelan border region
  - Examine the cultural traditions and lifestyles of the Wayuu people
- 3. Los deportes en la televisión Unit Test

#### 4. Mis películas favoritas

1. Una película interesante

- Apply knowledge of vocabulary related to movies
- Examine the demographics, geography, wildlife, and popular activities of La Pampa province of Argentina
- Compare and contrast Argentinian estancias with ranches and plantations in the United States

# 2. Una película de La Pampa

- Apply knowledge of vocabulary related to making a movie
- Examine daily life in La Pampa, including agriculture, ranching, and the historical gauchos
- Examine the 1915 film Nobleza gaucha, an adaptation of José Hernández's epic poem,
   Martín Fierro

# 3. Verbos con objeto indirecto

- Apply knowledge of how to use verbs that use indirect object pronouns
- Examine life in the las pampas region through going to the movies in Concepción de Uruguay, Argentina
- Examine the cultural significance of mate and the calabash gourd

#### 4. Presente perfecto

- Apply knowledge of how to use the present perfect tense
- Examine la payada music and poetry competitions in Argentina and Uruguay
- Examine the Festival Internacional de Cine de Punta del Este in Uruguay

# 5. Repaso de Mis películas favoritas

- Recall vocabulary, expressions, and grammar concepts
- Examine Argentinian films that have been honored at the Academy Awards
- Examine the cultural importance of Lihué Calel National Park
- 6. Mis películas favoritas Unit Test

#### 5. ¡Me encanta la paella!

- 1. Un almuerzo en la playa
  - Apply knowledge of vocabulary related to foods and other items found in kitchens
  - Examine the cultural significance of paella
  - Examine the experience of going on holiday in the Mediterranean coastal cities of Barcelona, Valencia, and Alicante

#### 2. ¿Cómo se hace?

- Apply knowledge of vocabulary related to recipes and food preparation
- Examine the northern coastal cities of Asturias and Cantábria
- Examine recipes for cocido, a Spanish stew

# 3. ¡Qué rico!

- Apply knowledge of negative tú commands
- Examine common meal time habits of Spain
- Examine popular meals and restaurants in San Sebastián, including pinchos, tapas, and raciones

#### 4. El se impersonal

- Apply knowledge of the impersonal se
- Examine popular meals and restaurants in Castilla, such as asadores and mesones
- Examine the life and work of Diego Velázquez, a Spanish still-life and portrait painter
- 5. Repaso de ¡Me encanta la paella!

- Recall vocabulary, expressions, and grammar concepts
- Examine common Mediterranean foods
- Examine Spain's efforts to blend traditional and modern foods
- 6. ¡Me encanta la paella! Unit Test

#### 6. Vamos a comer al aire libre

- 1. Una comida en el campo
  - Apply knowledge of vocabulary related to camping and eating outdoors
  - Examine the demographics and geography of southern México
  - Examine the experience of camping in Limontitla Botanical Garden and visiting the Grutas de Cacahuamilpa
- 2. ¿Te gusta la parrillada?
  - Apply knowledge of vocabulary related to foods and words to describe foods and the outdoors
  - Examine the demographics, geography, history, and environment of Oaxaca
  - Examine common foods and dishes of Oaxaca
- 3. El imperativo con usted y ustedes
  - Apply knowledge and use formal usted and ustedes commands
  - Examine tourism and the indigenous cultures of Chiapas, México
  - Use formal commands to identify what people can do to protect endangered areas and species in Chiapas
- 4. Usos de por
  - Apply knowledge of the uses of por
  - Examine the geography and ecological tourism of Tabasco, México
  - Examine the history of Tabasco, including colonization, revolutions, and indigenous cultures
- 5. Repaso de Vamos a comer al aire libre
  - Recall vocabulary, expressions, and grammar concepts
  - Examine popular oudoor activities to do in Ixtlán de Juárez
  - Examine Palenque National Park and activities to do there
- 6. Vamos a comer al aire libre Unit Test

#### 7. Quiero viajar en avión

- 1. Un viaje en avión
  - Apply knowledge of vocabulary related to travel plans
  - Examine the demographics, geography, and climate of the Caribbean region and basin
  - Examine popular travel and vacation activities in the Caribbean
- 2. El aeropuerto
  - Apply knowledge of vocabulary related to airports
  - Examine modes of transportation to Puerto Rico and other minor Caribbean islands
  - Examine the life and work of Francisco Oller, an impressionist painter of landscapes
- 3. El presente del subjuntivo
  - Apply knowledge and use the present subjunctive tense
  - Compare and contrast Ciénaga de Zapata, Cuba with the Florida Everglades in the United States
  - Evaluate the experience of taking a light aircraft to visit Cayo Largo del Sur
- 4. Los Verbos Irregulares en el Subjuntivo

- Apply knowledge and use irregular verbs in the subjunctive tense
- Examine a trip to Yucatán
- Examine the cultural and historical significance of the Pre-Columbian Maya walled city of Tulum, México
- 5. Repaso de Quiero Viajar en Avión
  - Recall vocabulary, expressions, and grammar concepts
  - Examine the mysterious cenotes and caverns of Mexico
  - Examine the Books of Chilam Balam, ancient Mayan literature
- 6. Quiero viajar en avión Unit Test

# 8. ¡Buen viaje!

- 1. De viaje por Costa Rica
  - Apply knowledge of vocabulary related to sites of interest in a city and staying in a hotel
  - Examine the demographics, geography, and environment of Costa Rica
  - Examine a trip to the city of Puntarenas
- 2. Mi viaje a Tamarindo
  - Apply knowledge of vocabulary related to tourist activities and behaviors
  - Examine and plan a trip from Puntarenas to Tamarindo
  - Examine the mysterious Pre-Columbian stone spheres of Costa Rica
- 3. Subjuntivo y las expresiones impersonales
  - Apply knowledge and use the present subjunctive with impersonal expressions
  - Examine the wildlife and biodiversity of Costa Rica
  - Examine a visit to Tortuguero National Park and activities to do there
- 4. Subjuntivo y verbos con cambio de raíz
  - Apply knowledge and use the present subjunctive of stem-changing verbs
  - Examine the town of Monteverde, including its U.S. Quaker influences
  - Examine the Monteverde Cloud Forest, a popular tourist destination
- 5. Repaso de ¡Buen viaje!
  - Recall vocabulary, expressions, and grammar concepts
  - Examine the experience of hiking in Carara National Park, and Pura Vida Gardens and Waterfalls
  - Examine Costa Rican Spanish expressions and regional dialects
- 6. ¡Buen viaje! Unit Test

# 9. ¿Cuál será mi profesión?

- 1. Mi profesión
  - Apply knowledge of vocabulary related to professions
  - Examine the significance and effects of El Cinturón de Fuego (the Pacific Ring of Fire) on Spanish-speaking countries
  - Examine the lake and volcano region of Chile
- 2. El futuro Primera parte
  - Apply knowledge of vocabulary related to talking about the future
  - Examine the Nevado del Huila and Totumo Mud volcanoes in Colombia
  - Examine Pululahua Geobotanical Reserve, home of one of the largest craters in the world
- 3. El futuro Segunda parte
  - Apply knowledge and use the future tense

- Examine a visit to the Arenal Volcano, hot springs, and spas
- Examine the wildlife and services of the Arenal Volcano National Park
- 4. El futuro de verbos irregulares
  - Apply knowledge and use the future tense of irregular verbs
  - Examine life in Mexico City, including its earthquake and volcano safety codes
  - Examine the life and work of Gerardo "Dr. Atl" Murillo, a painter and writer with a passion for volcanoes
- 5. Repaso de ¿Cuál será mi profesión?
  - Recall vocabulary, expressions, and grammar concepts
  - Examine the Lassen Volcanic National Park
  - Examine the important work of a volcanologist
- 6. ¿Cuál será mi profesión? Unit Test

# 10. Un futuro mejor

- 1. Belice
  - Apply knowledge of vocabulary related to the planet Earth, energy, and the environment
  - Examine the demographics, geography, and environment of Belize
  - Examine Belizean history and current language trends

# 2. Filipinas

- Apply knowledge and use the future tense for other irregular verbs and the present subjunctive tense with expressions of doubt
- Examine the history, demographics, geography, and environment of the Philippines
- Examine current and future Filipino Spanish language trends

#### 3. Sahara Occidental

- Recall vocabulary, expressions, and grammar concepts
- Examine the history, geography, and environment of Western Sahara
- Examine the Ladino or Judeo-Spanish language that is spoken by Sephardic communities around the world
- 4. Un futuro mejor Unit Test

#### 11. Semester Review

- 1. Repaso
  - Review semester vocabulary related to natural disasters, accidents, sporting events, making movies, following a food recipe, eating outdoors, making travel plans, places to visit in a city, professions, and Earth and the environment
  - Review semester grammar concepts including the preterites of venir, decir, traer, preferir, pedir, and dormir, past participles, negatives, regular and irregular commands, and the present subjunctive with impersonal expressions and expressions of doubt
  - Review cultural characteristics of the Spanish-speaking world, including an overview of Uruguay, pluri-nationality, indigenous peoples in Ecuador, cities on the border of Venezuela and Colombia, las pampas region in South America, and Mediterranean coast

#### 2. Semester Test

Pennwood Cyber Charter School Application

# **Spanish III**



#### Spanish III

Course Instructional Time: 170 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

# **Course Summary:**

Spanish III A is a continuation of the first two years of Spanish instruction. The student will continue to sharpen his listening, speaking, reading, and writing skills through a variety of activities. This course is organized into five topics: feelings, transportation, work, countries, and the future. The student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, past-tense verbs, articles, and adjectives. Elements of the Spanish-speaking world and culture appear throughout the course, including people, geographical locations, and histories.

Spanish III B is a continuation of the first two and a half years of Spanish instruction. The student will continue to sharpen his listening, speaking, reading, and writing skills through a variety of activities. Throughout the five topics covered in this course, the student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, past-tense verbs, future-tense verbs, conditional-tense verbs, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Elements of the Spanish-speaking world and culture appear throughout the course, including people, geographical locations, and histories.

#### **Course Outline**

#### **SEMESTER A**

#### 1. Los Sentimientos

- Describing people and things
- Talking about things that happened in the past
- Talking about things that you and others do
- Using appropriate expressions to express everyday things you would like to say
- Expressing things you do not do with the correct negative expressions
- Talking about your daily routine
- Reviewing and discussing cultural practices of the Hispanic people

- Reviewing historical details about Spain
- How to say that you and someone else do something with or to each other

# 2. La Transportación

- Describing things and people
- Talking about things that happened in the past
- Talking about how frequently or how you do things
- Talking about where things are
- Making commands
- Talking about transportation and getting from one place to another and how
- New cultural and historical issues in the Spanish-speaking world

## 3. A Trabajar

- Telling others what to do and giving advice
- Making negative statements and negative advice
- Asking questions
- Talking about your past, what you used to do
- Expressing what things you or someone may be obligated to do
- Talking about various professions that people have and their responsibilities in these professions

#### 4. Los Países Y Las Nacionalidades

- Talking about and describing actions that happened in the past
- Talking about what you or someone is doing right now
- Talking about things, people and places you know
- Using new vocabulary having to do with international affairs

#### 5. El Futuro

- Talking about things happening in the present
- Talking about things that happened in the past
- Learning to write a letter in Spanish
- Talking about things that will happen in the future
- Talking about things that might happen (if other conditions are met)
- Talking about the environment

#### 6. Examen

#### **SEMESTER B**

#### 1. La Salud

- Talking about yourself, how you feel, how others feel
- Asking questions about how others feel
- Expressing things that happened in the past
- Talking about the future
- Talking about health professions
- Talking about things that can be wrong or hurting
- Talking about your daily routine and things you do with or to other people

#### 2. La Casa

- You will review talking about how you do things or how frequently or how well you do them.
- You will review talking about things that would happen (if other things were to happen).
- You will review telling people what to do.
- You will learn how to express what you would like.
- You will learn to give directions.
- You will learn additional ways to talk about your home.
- You will learn cultural issues about Argentina.

#### 3. Las Medidas

- Review of talking about past, present, and future activities.
- Review of numbers.
- Review of comparing people, things, and activities.
- Using a variety of expressions to express things in Spanish.

# 4. Las Profesiones

- Talk about professions and jobs.
- Talk about getting an education.
- Reviewing the use of pronouns to talk about things and people.
- Reviewing weather and units of time.

#### 5. Mi Historia Personal

- Reviewing vocabulary and expressions to talk about yourself
- Reviewing expressions of time and talking about the past
- Reviewing more with the passive voice
- Expressing quantities
- Reviewing talking about the present, past, and future

#### 6. Examen

Pennwood Cyber Charter School Application

# **Spanish IV**



# **Spanish IV**

Course Instructional Time: 170 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

# **Semester A Summary:**

Spanish IV A continues to build on the skills the student has mastered in his previous Spanish courses. The student will continue to sharpen his listening, speaking, reading, and writing skills through a variety of activities. Throughout the five topics covered in this course, the student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, past-tense verbs, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Elements of the Spanish-speaking world and culture appear throughout the course, including people, geographical locations, and histories. It is recommended to use Mozilla® Firefox® or Internet Explorer® when viewing this course.

#### **Semester A Outline**

- 1. Introduction to Spanish IV
  - Welcome to Spanish IV!
- 2. Las relaciones personales
  - 1. Contextos (Day 1)
    - Identify vocabulary about personal relationships and personal attributes
    - Spontaneously express personal preferences and experiences with a partner

Appendices page 1856 Pennwood Cyber Charter School

- Defend an opinion in conversations with a partner
- Collaborate with a partner to role play a spontaneous conversation from a prompt
- 2. Contextos (Day 2)
  - Recall vocabulary to discuss personal relationships
  - Compare personal attributes using antonyms and analogies
- 3. Contextos (Day 3)
  - Recall vocabulary used to discuss personal relationships and personal attributes
- 4. Contextos (Quiz)
- 5. Fotonovela (Day 1)
  - Describe characters in a video using vocabulary about personal attributes and activities
- 6. Fotonovela (Day 2)
  - Determine which personal attributes and activities are related to each character in a video
  - Organize the events from a video in chronological order
- 7. El mundo hispano (Day 1)
  - Identify vocabulary related to personal relationships in a reading passage
- 8. El mundo hispano (Day 2)
  - Identify vocabulary related to personal relationships and apply knowledge to a film
- 9. Estructura 1.1 (Day 1)
  - Form the present tense of regular and irregular verbs, including stem-changing verbs
- 10. Estructura 1.1 (Day 2)
  - Form the present tense
- 11. Estructura 1.1 (Day 3)
  - Form the present tense
- 12. Estructura 1.2 (Day 1)
  - Distinguish between the uses of ser and estar
  - Construct sentences with ser and estar with adjectives
- 13. Estructura 1.2 (Day 2)
  - Distinguish between the uses of ser and estar
- 14. Estructura 1.2 (Day 3)
  - Distinguish between the uses of ser and estar
- 15. Estructura 1.3 (Day 1)
  - Form progressive forms, including stem-changing verbs
  - Form the present participle in writing
- 16. Estructura 1.3 (Day 2)
  - Conjugate progressive forms
- 17. Estructura 1.3 (Day 3)
  - Form the progressive forms, including stem-changing verbs
- 18. Estructura (Quiz)
- 19. Gramática adicional 1.4
  - Distinguish between masculine, feminine, and plural nouns
  - Determine the difference between definite and indefinite articles

- 20. Gramática adicional 1.5
  - Compose sentences with adjectives that agree in gender and number
  - Describe people using descriptive adjectives
- 21. En pantalla
- 22. Literatura
  - Analyze a poem, including the use of personification in the poem
  - Identify vocabulary used in a poem
- 23. Cultura
  - Identify vocabulary to discuss culture
  - Identify the contributions of a Hispanic-American woman to American government
- 24. Atando cabos
  - Identify cultural and historical aspects of a Spanish-speaking region
  - Express an opinion in response to an email
- 25. Atando cabos (Portfolio)
  - Express and defend an opinion in writing
- 26. Online Practice
- 27. Unit Test

#### 3. Las diversiones

- 1. Contextos (Day 1)
  - Identify vocabulary to discuss hobbies
  - Make and confirm predictions about hobbies in a conversation with a partner
  - Compare and contrast American and foreign films in a discussion with a partner
  - Prepare and present a presentation about a Latino singer or athlete with a group
- 2. Contextos (Day 2)
  - Identify vocabulary to discuss hobbies
- 3. Contextos (Day 3)
  - Identify vocabulary to discuss hobbies
- 4. Contextos (Quiz)
- 5. Fotonovela (Day 1)
  - Demonstrate comprehension of and transcribe vocabulary heard in a film
  - Summarize events in a film
- 6. Fotonovela (Day 2)
  - Summarize events in a film
- 7. El mundo hispano (Day 1)
  - Determine contributions of Hispanic actors and actresses
  - Summarize details about Mexican cinema
- 8. El mundo hispano (Day 2)
  - Identify vocabulary to discuss the Mexican cinema
  - Summarize details about Mexican cinema
- 9. Estructura 2.1 (Day 1)
  - Select the correct object pronoun in writing

- 10. Estructura 2.1 (Day 2)
  - Select the correct object pronoun in writing
- 11. Estructura 2.1 (Day 3)
  - Select the correct object pronoun in writing
  - Differentiate between direct and indirect object pronouns
- 12. Estructura 2.2 (Day 1)
  - Form the verb gustar and similar verbs with indirect object pronouns
- 13. Estructura 2.2 (Day 2)
  - Compose questions and sentences with the verb gustar and similar verbs with indirect object pronouns
- 14. Estructura 2.2 (Day 3)
  - Form the verb gustar and similar verbs with indirect object pronouns
- 15. Estructura 2.3 (Day 1)
  - Conjugate reflexive verbs with reflexive pronouns
  - Organize events in chronological order
- 16. Estructura 2.3 (Day 2)
  - Form reflexive verbs
  - Select the correct preposition to use with reflexive verbs
- 17. Estructura 2.3 (Day 3)
  - Form reflexive verbs
- 18. Estructura (Quiz)
- 19. Gramática adicional 2.4
  - Distinguish between and correctly use demonstrative pronouns and demonstrative adjectives
- 20. Gramática adicional 2.5
  - Compare the usage of possessive pronouns and adjectives
  - Compare possessive adjectives and stressed possessive adjectives
- 21. En pantalla
  - Demonstrate listening comprehension at the intermediate-high level when viewing a film
  - Summarize a short film
- 22. Literatura
  - Identify vocabulary found in a literary work
  - Summarize the content of a poem
  - Organize events from a poem in chronological order
- 23. Cultura
  - Identify vocabulary found in a reading about culture in a Spanish-speaking country
  - Comprehend the main ideas and details in a reading about cultural elements in a Spanish-speaking country
- 24. Atando cabos
  - Summarize a reading about cultural elements in a Spanishspeaking country
  - Describe a work of art from a Spanish-speaking country
- 25. Atando cabos (Portfolio)

- Compose an email to a friend to advise him/her about appropriate behavior at an event
- 26. Online Practice
- 27. Unit Test

#### 4. La vida diaria

- 1. Contextos (Day 1)
  - Identify vocabulary to discuss daily activities
  - Prepare and present information about daily activities to a partner
  - Compare weekly schedules in a group, asking and answering questions spontaneously
  - Generate answers to questions in a group setting
  - Dramatize and orally present a real-life situation with a partner
  - Create an advertisement with a testimonial defending the product and present it to the class
  - Produce and orally present information about a famous Hispanic person
- 2. Contextos (Day 2)
  - Identify vocabulary to discuss daily activities
- 3. Contextos (Day 3)
  - Identify vocabulary to discuss daily activities orally and in writing
- 4. Contextos (Quiz)
- 5. Fotonovela (Day 1)
  - Summarize events in a short film
  - Compare and contrast characters in a short film
- 6. Fotonovela (Day 2)
  - Summarize events in a short film
  - Demonstrate listening comprehension at the intermediate-high level by answering questions orally and in writing
- 7. El mundo hispano (Day 1)
  - Identify vocabulary in a reading
  - Identify cultural aspects and famous people of a Spanishspeaking country
- 8. El mundo hispano (Day 2)
  - Identify vocabulary in a video about cultural aspects of a Spanish-speaking country
  - Organize events about cultural aspects in chronological order
  - Summarize details of a video about cultural elements
- 9. Estructura 3.1 (Day 1)
  - Form preterite and imperfect tenses that describe past actions
  - Compare the use of ser and ir
- 10. Estructura 3.1 (Day 2)
  - Conjugate verbs in the preterite tense in writing
- 11. Estructura 3.1 (Day 3)
  - Form the preterite tense to describe past actions
- 12. Estructura 3.2 (Day 1)

- Conjugate the imperfect tense of regular and irregular verbs in writing
- 13. Estructura 3.2 (Day 2)
  - Form the imperfect tense of regular and irregular verbs
- 14. Estructura 3.2 (Day 3)
  - Form the imperfect tense of regular and irregular verbs
- 15. Estructura 3.3 (Day 1)
  - Compare the use of the preterite and imperfect tenses
- 16. Estructura 3.3 (Day 2)
  - Distinguish between the use of the preterite and imperfect tenses
  - Conjugate the preterite and imperfect tenses orally and in writing
- 17. Estructura 3.3 (Day 3)
  - Distinguish between the use of the preterite and imperfect tenses
- 18. Estructura (Quiz)
- 19. Gramática adicional 3.4
  - Express the time using the verb ser and prepositions
- 20. En pantalla
  - Identify vocabulary in a short film
  - Summarize a short film
- 21. Literatura
  - Identify vocabulary found in a poem
  - Identify contributions of an author from a Spanish-speaking country
  - Analyze a poem
- 22. Cultura
  - Identify vocabulary about art from a Spanish-speaking country
  - Summarize an article about art in a Spanish-speaking country
- 23. Atando cabos
  - Produce correct pronunciation when linking sounds from words in Spanish
  - Differentiate between pronunciation when linking vowels and consonant sounds
- 24. Atando cabos (Portfolio)
  - Narrate an interesting anecdote about a real-life situation in writing
- 25. Online Practice
- 26. Unit Test

#### 5. Semester A

- 1. Semester Review (Day 1)
- 2. Semester Review (Day 2)
- 3. Online Practice
- 4. Semester Exam

# **Semester B Summary:**

Spanish IV B is a continuation of the first three and a half years of Spanish instruction. The student will continue to sharpen his listening, speaking, reading, and writing skills through a variety of activities. Throughout the five topics covered in this course, the student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, past-tense verbs, future-tense verbs, conditional-tense verbs, the subjunctive, the present perfect tense, the past perfect tense, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Elements of the Spanish-speaking world and culture appear throughout the course, including people, geographical locations, and histories.

# **Semester B Outline**

# 1. Introduction to Spanish IV

1. Welcome to Spanish IV!.

# 2. La salud y el bienestar

- 1. Contextos (Day 1)
  - Define vocabulary to discuss health and welfare
  - Prepare for and participate in a debate about fast food
  - Compare and contrast recommendations about a healthy lifestyle in a group setting
  - Create an advertisement for a product
  - Compose a story
- 2. Contextos (Day 2)
  - Recall vocabulary to discuss health and welfare
- 3. Contextos (Day 3)
  - Use new vocabulary to discuss health and welfare
- 4. Contextos (Quiz).
- 5. Fotonovela (Day 1)
  - Describe the events and characters in a short film
- 6. Fotonovela (Day 2)
  - Summarize the events of a short film
  - Identify vocabulary from a short film
  - Organize the events of a short film in chronological order
- 7. El mundo hispano (Day 1)
  - Summarize cultural aspects of a Spanish-speaking country
- 8. El mundo hispano (Day 2)
  - Identify vocabulary to discuss pharmacies and medicine in Spanish-speaking countries
- 9. Estructura 4.1 (Day 1)
  - Form the present subjunctive in noun clauses

- Differentiate between the infinitive, indicative, and subjunctive tenses
- 10. Estructura 4.1 (Day 2)
  - Form the present subjunctive in writing
  - Differentiate between the use of the indicative and subjunctive tenses
  - Write original sentences using the subjunctive
- 11. Estructura 4.1 (Day 3)
  - Form the present subjunctive in noun clauses
- 12. Estructura 4.2 (Day 1)
  - Compose negative and affirmative formal and informal commands
- 13. Estructura 4.2 (Day 2)
  - Compose negative and affirmative formal and informal commands
- 14. Estructura 4.2 (Day 3)
  - Form negative and affirmative formal and informal commands
- 15. Estructura 4.3 (Day 1)
  - Compare the usage of por and para
- 16. Estructura 4.3 (Day 2)
  - Differentiate between por and para
- 17. Estructura 4.3 (Day 3)
  - Distinguish between the use of por and para
- 18. Estructura (Quiz).
- 19. Gramática adicional 4.4
  - Form the subjunctive with impersonal expressions
- 20. En pantalla
  - Identify vocabulary in a short film
  - Analyze two passages to determine the best summary of the events in a short film
- 21. Literatura
  - Identify vocabulary in a literary selection
  - Summarize the content of a literary selection
  - After reading a literary selection, arrange the events in chronological order
- 22. Cultura
  - Describe cultural aspects of a Spanish-speaking country
- 23. Atando cabos
  - Describe cultural aspects of a Spanish-speaking country
  - Recall vocabulary to discuss health and welfare
- 24. Atando cabos (Portfolio)
  - Generate a written list of tips for healthy living
- 25. Online Practice
- 26. Unit Test
- 3. Los viajes
  - 1. Contextos (Day 1)
    - Define vocabulary to discuss travel

- Express and defend opinions about traveling to or living in Costa Rica
- Express and defend opinions about the best place to travel
- Create an original advertisement and present to the class
- 2. Contextos (Day 2)
  - Recall vocabulary to discuss travel in writing
  - Demonstrate listening comprehension to summarize information in an advertisement about a trip
- 3. Contextos (Day 3)
  - Recall vocabulary to discuss travel
  - Discuss using travel vocabulary
- 4. Contextos (Quiz)
- 5. Fotonovela (Day 1)
  - Summarize events in a short film
  - · Organize events from a short film in chronological order
- 6. Fotonovela (Day 2)
  - Compare the use of the indicative and subjunctive tenses
  - Describe the characters in a short film
  - Demonstrate listening comprehension at the intermediate-high level
- 7. El mundo hispano (Day 1)
  - Describe cultural and historical aspects of Spanish-speaking countries
- 8. El mundo hispano (Day 2)
  - Identify vocabulary to discuss cultural aspects of Spanishspeaking countries
- 9. Estructura 5.1 (Day 1)
  - Form comparatives and superlatives, including comparisons of equality and inequality
- 10. Estructura 5.1 (Day 2)
  - Compose sentences with comparatives and superlatives
- 11. Estructura 5.1 (Day 3)
  - Form comparatives and superlatives
- 12. Estructura 5.2 (Day 1)
  - Form negative, affirmative, and indefinite expressions
- 13. Estructura 5.2 (Day 2)
  - Form negative, affirmative, and indefinite expressions
- 14. Estructura 5.2 (Day 3)
  - Produce negative, affirmative, and indefinite expressions
- 15. Estructura 5.3 (Day 1)
  - Compose sentences independently that use the subjunctive tense with adjective clauses
  - Compare the use of the indicative and subjunctive tenses
- 16. Estructura 5.3 (Day 2)
  - Conjugate the subjunctive tense with adjective clauses
  - Differentiate between the uses of the indicative and subjunctive tenses
- 17. Estructura 5.3 (Day 3)

- Form the subjunctive tense with adjective clauses
- Write sentences with the subjunctive in adjective clauses
- 18. Estructura (Quiz)
- 19. Gramática adicional 5.4
  - Compare and contrast using pero and sino
- 20. En pantalla
  - Identify vocabulary from a short film
  - Analyze two passages to select the best summary of a short film
- 21. Literatura
  - Identify vocabulary from a literary selection
  - Organize events in a literary selection in chronological order
  - Write about a literary selection using vocabulary from the selection

#### 22. Cultura

- Describe cultural aspects in Spanish-speaking countries
- Identify vocabulary about cultural aspects in Spanish-speaking countries
- 23. Atando cabos
  - Identify cultural aspects of Spanish-speaking countries
- 24. Atando cabos (Portfolio)
  - Write an itinerary for a trip for a friend, considering the friend's preferences
- 25. Online Practice
- 26. Unit Test

#### 4. La naturaleza

- 1. Contextos (Day 1)
  - Identify vocabulary to discuss nature
  - Express answers to questions about environments with a partner
  - Predict what will happen in different places in a conversation with a partner
  - Generate a list of famous people with a group and predict where they will be in the future
  - Devise conversations with a partner given prompts about reallife situations
  - Prepare a presentation about reefs in Costa Rica and Puerto Rico
- 2. Contextos (Day 2)
  - Select correct vocabulary to discuss a magazine article about various environments
- 3. Contextos (Day 3)
  - Identify vocabulary to discuss nature
- 4. Contextos (Quiz)
- 5. Fotonovela (Day 1)
  - Summarize events from a short film
  - Describe characters in a short film
- 6. Fotonovela (Day 2)
  - Summarize events in a short film
  - Describe characters in a short film

- 7. El mundo hispano (Day 1)
  - Identify geographical aspects, such as coral reefs, in Spanishspeaking countries
  - Present information about reefs in writing
- 8. El mundo hispano (Day 2)
  - Identify vocabulary to discuss nature
- 9. Estructura 6.1 (Day 1)
- 10. Estructura 6.1 (Day 2)
  - Form the future tense of verbs
- 11. Estructura 6.1 (Day 3)
  - Form the future tense of verbs in writing
- 12. Estructura 6.2 (Day 1)
  - Produce the subjunctive tense with adverbial clauses
  - Identify conjunctions that require the subjunctive tense
- 13. Estructura 6.2 (Day 2)
  - Compare the use of the indicative and subjunctive tenses with adverbial clauses
- 14. Estructura 6.2 (Day 3)
  - Form the subjunctive tense with adverbial clauses
- 15. Estructura 6.3 (Day 1)
  - Produce sentences with the prepositions a, hacia, and con
  - Differentiate between the uses of a, hacia, and con
- 16. Estructura 6.3 (Day 2)
  - Select the correct pronoun (a, hacia, and con) in writing
- 17. Estructura 6.3 (Day 3)
  - Produce sentences with the prepositions a, hacia, and con
  - Select the correct pronoun (a, hacia, and con)
- 18. Estructura (Quiz)
- 19. Gramática adicional 6.4
  - Produce sentences with adverbs, including proper formation with -mente
  - Distinguish between adverbs and adjectives
- 20. En pantalla
  - Identify vocabulary from a short film
  - Summarize a short film
- 21. Literatura
  - Identify vocabulary from a literary selection
  - Summarize a literary selection
  - Analyze a short story
- 22. Cultura
  - Identify vocabulary to discuss nature
  - Describe conservation efforts in Spanish-speaking countries
- 23. Atando cabos
  - Identify spelling patterns and their corresponding pronunciations
  - Describe the environment of Vieques, Puerto Rico, including the current levels of pollution and health
  - Identify vocabulary and grammar points taught in the unit
- 24. Atando cabos (Portfolio)

- Prepare a poster about a World Heritage site, including researching the topic
- 25. Online Practice
- 26. Unit Test.

# 5. Semester B

- 1. Semester Review (Day 1)
- 2. Semester Review (Day 2)
- 3. Online Practice.
- 4. Semester Exam

# APPENDIX A CURRICULUM

**A.2 COURSE GUIDES** 

f. FINE ARTS

**Cover Sheet** 

This document is part of Appendix A: Curriculum.

It includes course guides for each Fine Arts class.

- Art 1
- Art 2
- Art 3
- Art 4
- Art 5
- Art 6
- Art 7
- Art 8
- Art K
- Discovering Music I
- Discovering Music II

- Discovering Music III
- Experiencing Music I
- Experiencing Music II
- Experiencing Music III
- Exploring Music I
- Exploring Music II
- Exploring Music III
- Living Music I
- Living Music II

Course guides provide detailed information on the curriculum including course descriptions, unit summaries, lesson objectives, activities, and assessment types. Course guides include information on:

- Planned instruction (provided in the unit summary of each unit within individual Course Guides)
- Course objectives (provided in the unit and lesson objectives within individual Course Guides)
- Activities (provided in the unit summary and lesson objectives of each unit within individual Course Guides)

**Cover Sheet** 

# Art 1

Appendix A.2.f. Fine Arts Course Guides



#### Art 1

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

#### **Course Summary:**

In this course the student will develop and use skills in art, building on his knowledge about line, shape, and color. Your student will be introduced to other elements of art as well as to the principles of design. This course will enable your student to develop his creative side through the introduction of art media and the exploration of art themes. The activities in this course include practicing drawing, learning about color, creating designs using balance and patterns, and working with three dimensional forms.

#### **Course Outline**

#### 1. Elements of Art

- Learning About Lines: Practice Drawing
  - Demonstrate an understanding of line as a element of art
  - Develop knowledge about line by practice drawing different kinds of lines
- 2. Lines: Making a Drawing
  - Demonstrate an understanding that line is an element of art
  - Demonstrate an understanding that lines are used to express ideas in a visual way
- 3. Shapes
  - Identify shape as an element of art
  - Demonstrate an understanding that lines make shapes
  - Differentiate between geometric and organic shapes
- 4. Organic Shape Collage
  - Continue to demonstrate an understanding that shape is an element of art
  - Demonstrate an understanding of the difference between geometric and organic shapes
  - Demonstrate an understanding of collage techniques
- 5. Draw Animals Using Shapes
  - Demonstrate an understanding of shape as an important part of artmaking
- 6. Mixing Colors
  - Demonstrate an understanding of color as an element of art
  - Demonstrate an understanding of primary and secondary colors
  - Demonstrate an understanding that primary colors are mixed to make secondary colors
- 7. Color: Paint an Animal

Appendices page 1871 Pennwood Cyber Charter School

- Demonstrate an understanding of primary and secondary colors
- Demonstrate an understanding of mixing colors
- Demonstrate an understanding of the effects different colors have on works of art
- 8. Color Value: Paint a Landscape
  - Demonstrate an understanding of color value
  - Demonstrate an understanding of tints and shades
- 9. Discovering Texture
  - Demonstrate an understanding of texture as an element of art
  - Demonstrate an understanding of the difference between visual and tactile texture
- 10. Form and Texture in Clay
  - Identify form as an element of art
  - Demonstrate an understanding of the difference between shape and form

#### 2. Principles of Design

- 1. Patterns All Around Us
  - Become familiar with pattern as a principle of design
  - Demonstrate an understanding of patterns by printing a pattern
- 2. In Balance
  - Become familiar with balance as a principle of design
  - Differentiate between formal and informal balance
- 3. Emphasis in Artwork
  - Demonstrate an understanding of emphasis in artwork
  - Demonstrate an understanding of the term "focal point"
- 4. Creating Contrast in Art
  - Become familiar with contrast as a principle of design
  - Demonstrate an understanding of how contrast is used in artwork
- 5. Getting the Movement and Rhythm in Art
  - Demonstrate an understanding of movement and rhythm as principles of design
- 6. Working with Harmony and Unity
  - Demonstrate an understanding of harmony and unity as principles of design

#### 3. Art Media

- 1. Magazine Photo Collage
  - Demonstrate an understanding of the medium of photo collage
  - Demonstrate an understanding of the term composition
- 2. Nighttime Crayon Resist
  - Demonstrate an understanding of the crayon resist technique
  - Demonstrate an understanding of how color value is used to show a specific time of day
- 3. Monoprinting with Paint
  - Demonstrate an understanding of the printing process by creating a monoprint
- 4. Magical Mosaics
  - Demonstrate an understanding of the mosaic technique
- 5. Mixed Media African Mask
  - Demonstrate the ability to construct a work of art using a variety of art media
  - Demonstrate an understanding of formal balance

#### 6. The Potter's Art

- Demonstrate an understanding of ceramic forms
- Distinguish types of pottery from different cultures and time periods
- Demonstrate an understanding of how pottery is used for a variety of purposes in different cultures

## 4. Themes in Art

## 1. My Self-Portrait

- Demonstrate an understanding of portrait as a theme in art
- Demonstrate an understanding of the correct placement of facial features
- Demonstrate an understanding of the cultural characteristics of portraits

# 2. A Portrait of My Family

- Understand family portraits as a theme in art
- Understand portraits as a means of recording family history
- Demonstrate understanding of placement and proportion

# 3. Objects from Every Day

- Understand still life as a theme in art
- Demonstrate an understanding of proportion
- Demonstrate an understanding of the technique of overlapping

# 4. Under the Sea Crayon Resist

- Demonstrate an understanding about life in the ocean
- Understand the ocean as an important ecosystem
- Demonstrate an understanding of crayon resist techniques
- Demonstrate an understanding of how the environment influences art

#### 5. A Special Occasion

- Demonstrate an understanding of how special occasions are celebrated in different cultures
- Demonstrate an understanding of how elements of art can be used to illustrate a special occasion

#### 6. A Story Quilt Square

- Demonstrate an understanding of symbols
- Become familiar with story guilts as a theme in art

Appendix A.2.f. Fine Arts Course Guides



Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

## **Course Summary:**

In this course, your student will continue to develop and use skills in art, building on his knowledge about line, shape, and color. Your student will be introduced to other art elements as well as to the principles of design. This course will enable your student to develop his creative side through the introduction of art media and through the exploration of art themes. The activities in this course include drawing, learning about color, creating designs using balance and patterns, and working with three-dimensional forms.

## **Course Outline**

## 1. Laying the Foundation

- 1. What Can You Do with a Line?
  - Develop familiarity with different kinds of lines
  - Demonstrate an understanding of what artists do with different lines
- 2. Everything Has a Shape
  - Learn about the difference between geometric and organic shapes
  - Develop familiarity with how shapes are combined in artwork
- 3. Texture
  - Learn about the connection between line and texture
  - Demonstrate an understanding of the difference between visual texture and tactile texture
  - Develop familiarity with the different techniques used by artists to show visual texture
- 4. Color in Your World
  - Learn about primary colors
  - Demonstrate an understanding of how primary colors are mixed to make secondary colors
- 5. Value
  - Demonstrate an understanding of how colors are made lighter and darker
  - Learn about shadows
- 6. Seeing in Three Dimensions
  - Demonstrate an understanding of the difference between two-dimensional shape and threedimensional form
  - Learn about three-dimensional sculpture, including "sculpture in the round"

Appendices page 1875 Pennwood Cyber Charter School

#### 7. The Area Around You

- Identify space as an element of art
- Learn about the picture plane as "space"
- Demonstrate an understanding of space in artwork
- Understand simple perspective (near and far objects) and overlapping

# 2. Principles of Art

#### Get in Balance

- Learn about the principle of balance
- Demonstrate an understanding of the difference between formal and informal balance

#### 2. Pattern

- Learn about the principle of pattern
- Understand how colors, lines, and shapes can be repeated in order to make a pattern
- Become familiar with the use of patterns in artwork

# 3. Movement and Rhythm

- Learn about the principles of movement and rhythm
- Develop an understanding of how artists use movement and rhythm to keep the viewer interested and to move the viewer's eye through an artwork
- Demonstrate knowledge of the elements of line, shape, and color as they are used to create movement and rhythm in artwork

# 4. Unity and Harmony

- Learn about the principles of unity and harmony
- Develop an understanding of the use of color, line, texture, and shape as they are used to create unity and harmony in a work of art

#### 5. Variety

- Learn about the principle of variety and its function in art
- Understand how using a variety of colors, shapes, lines, textures, and patterns can make artwork unique and fun to look at

#### 6. Contrast and Emphasis

- Explore the principles of emphasis and contrast
- Develop an understanding of focal point as the most important part of a work of art
- Learn about the ways that artists create the focal point in an artwork, including the use of contrast

## 3. Mixing the Media: The Making of Art

#### 1. Art Where You Live

- Understand art as a reflection of the environment in which we live
- Learn how artists throughout time have depicted the environment around them

## 2. Games We Like to Play

- Learn about techniques used to draw people in motion
- Develop an understanding of muscles and joints and how they help us move

# 3. The Ins and Outs of Weaving

- Develop knowledge of different kinds of weaving, including textiles and basketry
- Understand the loom and its function, as well as warp threads and weft threads
- Learn about weaving from different cultures, including kente cloth from West Africa

# 4. Puppets Tell a Story

Learn about different styles of puppets from different cultures

- Understand that puppets are used to actively tell a story or a fable with a moral
- Learn about various kinds of puppets of different sizes and materials
- 5. Sculpture: Art We Can Walk Around
  - Learn about different kinds of sculpture
  - Learn to differentiate between sculpture in the round and relief sculpture
  - Become familiar with various types of sculpture
- 6. Art to Wear: Jewelry
  - Understand jewelry as a type of applied art
  - Become familiar with some different types of jewelry
  - Learn about how the making and wearing of jewelry or other adornment has different meanings in various cultures around the world
- 7. Assembling All Materials!
  - Learn about the technique of assemblage
  - Look at examples of assemblage artworks that have been created from found objects

# 4. Connections: Art in Other Subjects

- 1. Art and Science: Rainforest Printmaking
  - Learn about the connections between art and science
  - Develop a familiarity with the influence of science on works of art
  - Become familiar with the nature-inspired art of Henri Rousseau
- 2. Art and Math: You Take the Cake!
  - Learn about the connections between art and math
  - Demonstrate an understanding of simple fractions by creating a painting of a cake that shows fractional parts
  - Learn about the mathematically-inspired art of Wayne Thiebaud
- 3. Art and Language: Letter Designs Using Your Name
  - Learn about the connections between art and language
  - Become familiar with words and letters as an ingredient of design
  - Develop knowledge about the incorporation of words into artworks, including drawing, painting, and sculpture
- 4. Art and History: A Portrait from the Past
  - Learn about the connections between art and history
  - Develop an understanding of portraits and their significance—including the concept of a selfportrait—and how portraits can reveal the ways that people lived in past periods
  - Demonstrate an understanding of portraits and history by drawing a self-portrait that shows details from another period in time
- 5. Art and Seasons: Four Seasons Drawing
  - Learn about the seasons as they are expressed through forms of art
  - Develop and demonstrate familiarity with the main characteristics of each season, and with the ways in which artists depict seasons in their work
- 6. Art and Nutrition: Make a Colorful Food Collage
  - Learn about the concept of nutrition and eating well
  - Become familiar with the presence of food in works of art, including advertisements
  - Learn and demonstrate understanding of the technique of collage

Appendix A.2.f. Fine Arts Course Guides



Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

## **Course Summary:**

This course focuses on arts and crafts inspired by the four seasons. The student will examine and create artwork based on seasonal characteristics or common cultural trends. The student will be exposed to art history, art criticism, and art production activities with a multicultural focus. Creative freedom is experienced as the student uses his imagination and several types of media and processes. These processes include drawing, painting, printmaking, sculpture, bookmaking, and techniques for creating crafts and fiber arts.

## **Course Outline**

#### 1. Summer Strokes

- 1. Practice and Patience
  - Define the terms drawing, contour line, and shading
  - Distinguish between abstract and representational art
  - Demonstrate the techniques of contour drawing and shading using a pencil
- 2. Back-to-School Expressions: Pattern Portraits
  - Define the terms pattern and portrait
  - Draw an expressive line portrait that includes a variety of patterns
- 3. Summer Tunnel Book
  - Define the terms artists' books and book arts
  - Construct a tunnel-style book based on a summer experience
- 4. Using Watercolor
  - Define the term watercolor
  - Demonstrate watercolor techniques
- 5. A View of the Water: A Watercolor Seascape
  - Define the term seascape
  - Distinguish between the background, middle ground, and foreground of a picture
  - Draw and paint a watercolor seascape
- 6. Unit 1 Review and Test
  - Review the terms and concepts presented in Unit 1

# 2. Autumn Arts

Appendices page 1879 Pennwood Cyber Charter School

# 1. A Leaf Montage

- Distinguish between organic and geometric shapes
- Compose a montage drawing using overlapping, geometric, and organic leaf shapes

## 2. Harvest Still Life

- Define the term still life
- Demonstrate one or more of the following drawing techniques: shading, overlapping, and changes in object size and placement
- Create a still life drawing from life

# 3. Masks from Many Cultures

- Recognize symmetrical objects and images
- List the ways masks are used
- Construct a three-dimensional mask from paper

# 4. Pottery and People

- Define the terms clay, pinch pot, and coil
- Build a homemade clay pot using pinch and coil construction

## 5. Family and Friends

- Describe, judge, and draw conclusions about an artwork
- Identify an important artist and artwork from history

## 6. Unit 2 Review and Test

Review the terms and concepts presented in Unit 2

# 3. Winter Highlights

# 1. Fur, Fuzz, and Feathers

- Define the terms line, texture, and print
- Distinguish between line directions
- Create an animal print using line and texture

# 2. Weaving Warmth

- Define the terms weaving and loom
- Distinguish between the warp and weft
- Demonstrate the plain weave technique

# 3. Seeing Shadows

- Recognize the purpose of shadows in realistic artworks
- Describe the meaning of the term light source
- Paint a watercolor landscape with shadows

## 4. Portraits and Importance

- Describe the functions of a portrait
- Identify an important artist from history
- Apply the proportions of a human face
- Create a miniature self-portrait

#### 5. Unit 3 Review and Test

Review the terms and concepts presented in Unit 3

# 4. Spring into Art

- 1. Flowers, Sprouts, and Weeds
  - Define the terms collage and illustration
  - Identify a contemporary artist

- Apply watercolor and drawing techniques to create texture
- Design a collage illustrating plants and creatures

#### 2. Weather in Art

- Distinguish between warm and cool colors
- Describe, judge, and draw conclusions about an artwork
- Identify an important artist and artwork from history

# 3. Sensational Suns

- Define the terms folk art, relief, and sculpture
- Create a sun design using patterns
- Build a relief sun sculpture using clay slab construction

# 4. Outdoor Action Figures

- Draw a human figure in a pose
- Create a self-portrait drawing with you in motion
- Identify three ways an artist can show motion

## 5. Unit 4 Review and Test

Review the terms and concepts presented in Unit 4

Appendix A.2.f. Fine Arts Course Guides



Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

## **Course Summary:**

In this course the student will be introduced to works of art from several continents. Before humans developed written language, they recorded their thoughts and ideas using what we now call visual art. Throughout time the growth and development of civilizations around the world have been recorded and defined through the works of artists. Students will become familiar with the art elements and the principles of design and with how these elements and principles are applied to create visual art in diverse cultures.

# **Course Outline**

# 1. A European Adventure

- 1. Expressions in Lines
  - Demonstrate an understanding of the art element of line
  - Identify the art element of line as a means of expression
  - Compare realistic and expressionistic styles of artwork
- 2. Texture: What You See and Feel
  - Demonstrate an understanding of texture as an element of art
  - Differentiate between visual and tactile texture
- 3. All About Color
  - Demonstrate an understanding of color value
  - Compare and contrast color values in artwork
  - Demonstrate an understanding how to make tints and shades
- 4. Warm and Cool Expressions
  - Demonstrate an understanding of the properties of color
  - Differentiate between warm and cool colors
  - Demonstrate an understanding of how color can create a mood in artwork
- 5. Picasso and the Circus
  - Demonstrate an understanding of background, middleground, and foreground
- 6. Shape, Space, Cityscape
  - Demonstrate an understanding of shape and space as elements of art
  - Differentiate between geometric and organic shapes
  - Become familiar with the medium of art books

- 7. Forms and Shapes: Still Life
  - Differentiate between forms and shapes
  - Demonstrate an understanding of light and shadow
  - Demonstrate an understanding of composition in artwork
- 8. Create a Colorful Portrait
  - Compare and contrast styles of portraits
  - Demonstrate an understanding of realistic style
  - Demonstrate an understanding about correct placement of facial features
- 9. Unit 1 Review and Test
  - Review the terms and concepts presented in Unit 1

#### 2. African Travels

- 1. African Style: Changes and Interpretations
  - Identify how African art forms changed established European art
- 2. Ceremonial Dress: Create a Mask with Meaning
  - Demonstrate the ability to identify the three types of African masks
  - Demonstrate an understanding of the purposes of African masks
  - Demonstrate an understanding of symmetrical balance
- 3. Special Guardians: Kota Figures
  - Identify the Gabon and Congo regions in West Africa
  - Develop an understanding of the Kota people and the Kota image
  - Demonstrate an understanding of cardboard construction techniques
- 4. Mudcloth Resist
  - Demonstrate an understanding of how patterns are used in African textiles
  - Demonstrate an understanding of emphasis, pattern, and rhythm in design
- 5. Symbols in Cloth: Adinkra Designs
  - Demonstrate an understanding of symbols
  - Demonstrate an understanding of symbols on adinkra cloth
- 6. Colorful Beads
  - Demonstrate an understanding of how beads are used in Yoruba culture
  - Demonstrate an understanding of how color is used in Yoruba culture
- 7. A View from the Side: Egyptian Profiles
  - Demonstrate an understanding of life in ancient Egypt
  - Demonstrate an understanding of proportion
  - Demonstrate an understanding of Egyptian wall paintings
- 8. Unit 2 Review and Test
  - Review the terms and concepts presented in Unit 2

# 3. Above and Below: Art in the Americas

- 1. Transition to the New World
  - Demonstrate an understanding of African contributions to cultures in the New World
- 2. The Harlem Renaissance
  - Demonstrate an understanding of the art forms of the Harlem Renaissance
- 3. Expressing Mood: Abstract Expressionism
  - Demonstrate an understanding of abstract expression

- Demonstrate an understanding of how abstract expressionism changed art
- Demonstrate an understanding of how the elements of art are used in abstract expressionism
- 4. Beauty Around Us: Designs of Native America
  - Demonstrate an understanding of Native American artifact functions
  - Demonstrate an understanding of some Native American traditions
- 5. The Art of the Kuna: Mola Designs
  - Demonstrate an understanding of the Kuna people
  - Demonstrate an understanding of mola design standards
- 6. Unit Review and Test
  - Review the concepts and terms learned in Unit 3

# 4. The Expressive Art of Asia

- 1. Painting Quietly: Sumi-e
  - Demonstrate an understanding of effective use of line
  - Demonstrate an understanding of the role of nature in Japanese art
  - Demonstrate an understanding of writing haiku poems
- 2. Paper: More Than Just for Writing
  - Demonstrate an understanding of how paper is used in Japan
- 3. The Dance of the Dragon
  - Demonstrate an understanding of art forms from China
  - Demonstrate an understanding of paper construction techniques
- 4. Indonesian Batik Design
  - Demonstrate an understanding of radial balance
  - Demonstrate an understanding of the diversity of Indonesian visual art
- 5. Hands from India
  - Demonstrate an understanding of the art forms of India
  - Demonstrate an understanding of mehndi design
- 6. Stories in Miniature
  - Demonstrate an understanding of miniature painting from India
- 7. Unit 4 Review and Unit Test
  - Review the terms and concepts presented in Unit 4

Appendix A.2.f. Fine Arts Course Guides



Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

## **Course Summary:**

In this course, the student will be introduced to works of art through time. Throughout history the growth and development of civilizations around the world have been recorded and defined through the works of artists. The student will become familiar with the art elements, the principles of design, and how these elements and principles were applied to create visual art in different time periods and cultures.

## **Course Outline**

## 1. The Ancient World

- The Lines of Ancient Animals
  - Demonstrate an understanding of the art element of line
  - Identify and apply the art element of line as a means of expression
  - Create an image from imagination and memory that communicates a story
- 2. Arts, Rocks, and Shapes
  - Demonstrate an understanding of shape as an element of art
  - Distinguish between organic and geometric shapes
  - Distinguish between pictographs and petroglyphs
  - Apply the element of shape in a stencil painting
- 3. Textures in Ancient Mexico
  - Distinguish between tactile and visual texture
  - Apply the element of texture to a personal artwork
  - Demonstrate an understanding of Mayan subject matter
- 4. Ancient Greece: Vases and Stories
  - Demonstrate an understanding of the functions of ancient Greek vases
  - Distinguish between two types of forms
  - Create a design inspired by ancient Greek vases
  - Communicate a personal story through a drawing
- 5. All Roads Lead to Rome
  - Demonstrate an understanding of background, middleground, and foreground
  - Distinguish between styles of Roman wall painting
  - Apply perspective techniques to a personal artwork

Appendices page 1887 Pennwood Cyber Charter School

- 6. Bits and Pieces: Islamic Mosaics
  - Demonstrate an understanding of mosaic construction
  - Differentiate between primary and secondary colors
- 7. Unit 1 Review and Test
  - Review the terms and concepts presented in Unit 1

# 2. The Middle Ages to the Renaissance

- 1. Colored Light: Radial Balance in a Rose Window
  - Distinguish among the three types of balance
  - Demonstrate an understanding of the functions of stained glass windows in the Middle Ages
  - Apply radial balance to create an original design
- 2. Your Large Initial: Illuminated Manuscripts
  - Demonstrate an understanding of the purposes of illuminated manuscripts
  - Demonstrate an understanding of emphasis
- 3. Art in Medieval Japan: Painted Patterns
  - Apply a pattern to an original artwork
  - Demonstrate an understanding of pattern in Medieval Japanese paintings
- 4. Paint Like Michelangelo
  - Describe and apply the art principle of harmony
  - Identify the artwork of Michelangelo Buonarroti
  - Demonstrate an understanding of the Renaissance
- 5. Movement and Rhythm: A Renaissance Cityscape
  - Demonstrate an understanding of movement and rhythm
  - Apply the art principles of movement and rhythm to an original artwork
- 6. Art Meets Math: Where Lines Come Together
  - Demonstrate an understanding of one-point perspective
- 7. A True Renaissance Man: Leonardo da Vinci
  - Demonstrate an understanding of the life and work of Leonardo da Vinci
- 8. Unit 2 Review and Test
  - Review the terms and concepts presented in Unit 2

# 3. Baroque/Rococo

- 1. In The Royal Style: Versailles
  - Identify elements of baroque and rococo architecture
  - Understand motivations for architectural decisions
  - Design a home based on your own architectural decisions
- 2. Rococo Art
  - Identify elements of the rococo style in visual artwork
  - Create a drawing or painting influenced by the rococo style
- 3. Games Children Play
  - Investigate genre painting and the work of Chardin
  - Create a painting or photograph influenced by Chardin's style that shows games you like to play
- 4. Quiet Time
  - Investigate warm and cool color schemes
  - Create a collage that uses color to create a mood

- 5. Baroque and Rococo Unit Review and Test
  - Review the terms and concepts presented in Unit 3

#### 4. Romanticism and the Modern Age

- 1. Constable's Romantic Landscape
  - Identify elements of landscape painting
  - Understand the use of perspective, light, and contrast in Constable's work
  - Create your own landscape based on your experience of the weather
- 2. Your Impressionism: Monet, Cassatt, Van Gogh
  - Identify key discoveries during the Impressionist period
  - Understand the use of light, color, and mood in Impressionist painting
  - Create your own moody landscapes
- 3. Color Your World Differently: Matisse
  - Identify key discoveries during the Fauvist period
  - Describe the use of color and mood in Matisse's work
  - Create your own "wild-beast" collage
- 4. Taking a Walk around Cubism: Picasso
  - Identify key processes used by the Cubists
  - Describe the use of line, shape, value, and form
  - Create a multimedia piece inspired by Cubist processes
- 5. Icons and Illusions: Pop and Op
  - Identify key elements of pop and op art
  - Use contemporary images and color theory to create a poster with an icon and personal message
- 6. Romanticism and the Modern Age Review and Test
  - Review the terms and objectives from Unit 4: Romanticism and the Modern Age
  - Take a short exam to test comprehension

# 5. Critiquing Art

- 1. Aesthetics: How You Look at Art
  - Define aesthetics
  - Apply personal aesthetic judgments to the artwork reviewed in previous lessons
- 2. What Does an Artist Do?
  - Consider the roles artists have played in society over time
  - Investigate a career in the arts
- 3. It's Your Call: Art Criticism
  - Learn the steps involved in making educated judgments about artwork
  - Curate a show, and write a review based on your own work
- 4. Critiquing Art Review and Test
  - Review the terms and objectives from Unit 5: Critiquing Art
  - Take a short exam to test comprehension

Appendix A.2.f. Fine Arts Course Guides



Course Instructional Time: 170 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

# **Semester A Summary:**

The middle school art program is organized around the three artistic processes of creating, presenting, and responding. In addition, the program emphasizes how art and design can drive innovation in the same way science, technology, engineering, and mathematics do. Throughout the courses, students use various media and techniques to construct projects, collaborate with peers, and critique their own work as well as the work of other artists.

In Semester A, students explore the wide range and variety of visual arts. They learn the basic elements of art and principles of design and apply them in their own creative ways. The semester culminates in a study of factors involved in evaluating and critiquing art.

#### **Semester A Outline**

## 1. Course Overview

1. Getting Started in Middle School Art

## 2. What Is Art?

- Defining Art
  - Define and summarize key concepts of art
  - Describe the basic purposes of art creation
  - Analyze the purpose and success of art
- 2. Tell Your Story
  - Summarize how art is used to tell stories and record culture and history
  - Recognize personal stories that are part one's heritage
  - Analyze art work to determine the purpose and historical information being shared
- 3. Art and Entertainment
  - Recognize and understand the purpose of art in terms of entertainment
  - Use creativity to develop original characters and images
  - Justify the choices made in the creation of art
- 4. Express Yourself
  - Recognize the importance of personal expression
  - Demonstrate the ability to use art as a means of expression

 Evaluate the artwork of others to understand the emotions or opinions being expressed in the art

#### 5. Art and Aesthetics

- Demonstrate an understanding of the meaning of aesthetics
- Design a collection of art that is aesthetically pleasing
- Evaluate the qualities of individual pieces of art

# 6. Design and Production

- Identify the purpose of design in terms of utilitarian products used each day
- Carry out activities that enhance abilities to be creative
- Assess how ability to be creative can enhance skills used to design products
- Review the objectives of the unit as a whole

#### 3. The Elements of Art

#### 1. Interpreting Lines

- Describe various types of lines
- Analyze how those lines are used in art
- Create art that focuses on line usage

# 2. The Shapes that Form the World

- Identify different types of shapes
- Interpret how shapes are used to create objects in images
- Evaluate images for the use of shapes

#### 3. What You See and What You Feel

- Interpret what texture is in art
- Analyze how texture is created and used in art

## 4. The Colors Around Us

- Identify color families
- Learn how to mix colors
- Analyze how colors affect art
- Create art based on color theories

## 5. The Value in Art

- Define value and contrast
- Demonstrate understanding of value to create highlights and shadows

# 6. The Space In Between

- Recognize positive and negative space
- Demonstrate understanding of space in terms of drawing objects
- Evaluate images for use of space

# 7. It's All About Perspective

- Define perspective and rules for drawing in perspective
- Apply those rules to create a 1 point perspective drawing

# 8. Elements in Review

- Review all terms and concepts presented in the unit
- Analyze meaning of terms as they apply to art
- Use the elements of art to evaluate the quality of artwork
- Use experiences with art to interpret and critique artwork

# 4. Principles of Design

## 1. Variety in Art

- Describe what variety means in art
- Construct art based on the concept of variety
- Justify choices made during artistic creations

# 2. Is There Movement in a Still Image?

- Comprehend the premise of rhythm and movement in art
- Analyze how rhythm and movement were used in various pieces of art

## 3. The Patterns You See

- Define patterns in art
- Produce a design that utilizes patterns
- Critique the success of the design

# 4. What We Emphasize

- Define emphasis as it applies to art
- Observe usage of emphasis in art
- Analyze the effectiveness of emphasis in creating an obvious focal point

# 5. Proportion

- Define proportion
- Apply the theory of proportion in art production

# 6. Harmony Created

- Identify harmony as it applies to art
- Distinguish various ways that harmony is created when making art

## 7. Balancing Act

- Define various types of balance
- Create imagery based on the various types of balance
- Justify decisions made in the creation process

# 8. Principles in Review

Review all terms and processes learned during the unit

# 5. Responding to Art

# 1. Responding to Criteria

- Identify criteria for evaluating different types of art
- Communicate meaning through art
- Apply the evaluation criteria to a piece of art
- Justify decisions made in artwork

#### 2. The Portrait

- Describe the characteristics of portraiture
- Create art based on those characteristics
- Evaluate artwork based on the characteristics of quality portraits

# 3. The Art of Impressionism

- Describe the characteristics of Impressionism
- Create art based upon the characteristics of Impressionism

## 4. What's in a Name?

- List basic rules of one-point perspective
- Create an illustration in one-point perspective
- Evaluate art based on preset criteria of perspective

# 5. Being an Art Critic

- Apply appropriate criteria to analyze, select, and respond to art
- Critique choices artists, designers, and curators make when creating or presenting artwork
- Identify reasons why criteria used to evaluate artwork would vary
- Reflect on the procedures and products of art and design
- Analyze the traits of artwork that communicate effectively

# **Semester B Summary:**

The middle school art program is organized around the three artistic processes of creating, presenting, and responding. In addition, the program emphasizes how art and design can drive innovation in the same way science, technology, engineering, and mathematics do. Throughout the courses, students use various media and techniques to construct projects, collaborate with peers, and critique their own work as well as the work of other artists.

In Semester B, students consider the preservation and protection of art. They then explore how international, national, and local art influences ideas, actions, cultures, and environments. Using this information, students build their own ideas of the role art plays in their lives.

## **Semester B Outline**

#### 1. Course Overview

Getting Started in Middle School Art

# 2. Protecting and Respecting Art

- 1. Why Do We Need to Preserve Artwork?
  - Identify causes of damage to artwork
  - Analyze artworks and classify appropriate conservation techniques based on media
  - Understand why preserving art is culturally important
- 2. Careers in Preservation and Conservation
  - Identify careers available in preservation and conservation
  - Identify skill sets needed for art preservation and conservation careers
- 3. Is It Worth It?
  - Explore several criteria used in assessing the value of art
  - Use criteria to analyze art to assess whether it should be preserved
- 4. On View Now And Forever?
  - Select the most appropriate location to safely store and display artwork
- 5. Is it Archival? An Art Lab
  - Perform a series of experiments on preservation materials and situations
  - Report experiment findings
- 6. Preservation Panorama
  - Analyze different methods for preserving and presenting art work
  - Apply processes used to decide what artwork gets preserved and presented
  - Identify the professionals involved in preservation and presentation of artworks
  - Choose where to store, present, and preserve artwork
  - Explain the responsibilities artists face when creating works of art and design

## 3. The World of Art

1. Art in Context

- Recognize that works of art that appear similar can have different meanings and uses depending on the cultural context in which they were created
- Interpret art based on cultural context

## 2. Meaning and Culture

Given cultural background, interpret artwork to determine its uses, functions, and significance

## 3. The Story Behind the Artifact

 Differentiate between an insider's perspective and an outsider's perspective on the cultural significance of an object

# 4. Here and There; Then and Now

- Compare the original cultural value of artwork with its new value in a different culture
- Compare the original purpose and value of historical artwork with its purpose and value today
- Interpret art based on its cultural context
- Compare similar styles of artwork in different cultures and time periods

# 5. Art Metamorphosis

- Explore reasons for the evolution of artistic style
- Investigate how artists from various cultures and time periods inspire each other
- Create art that is inspired by a particular era or artistic style

# 6. Complex Contexts

- Analyze how works of art influence your world view
- Understand factors that influence creativity
- Evaluate how art helps us understand people living in different cultures, areas of the world, and/or periods of time
- Evaluate how understanding people living in different cultures, areas of the world, and/or periods of time helps us respond to art
- Critique works of art using cultural, geographical, and/or historical contexts

# 4. Art In Your Community

## 1. Imagining a Community

- Analyze why artists create community art and the purposes of community art
- Identify how artists represent their communities using community art

# 2. Community Celebration

Analyze and evaluate art that celebrates community events

# 3. Depicting our Neighbors

- Investigate artists' values by analyzing who they choose to depict and how the work is displayed
- Identify good placements for community murals and recognize why
- Create a plan for a community mural that depicts members of the community

# 4. Pictures: Giving Community Meaning

- Identify, analyze, and respond to cultural norms as expressed through community art and murals
- Act as art historians to interpret images and connect them to cultures

## 5. Perspectives in Community Art

- Master vocabulary and basic skills of perspective drawing, to create space
- Evaluate community art for its use of linear and atmospheric perspective
- Incorporate perspective in the completion of a community art mural plan

# 6. Community Art: A View Through the Wide-Angle Lens

 Respond to and evaluate community art according to criteria such as positive depiction of community, use of perspective, purpose of artwork, event celebrated, and culture norms depicted

## 5. Art in Your Life

- 1. Surrounded by Art
  - Differentiate between art objects and functional objects
  - Categorize objects as functional, art, or both using aesthetic judgment

## 2. Careers in Art

Review careers in art and analyze what skills would be necessary to excel at the career

#### 3. The Collector

- Create a collection based on stated aesthetic preferences and other organizing principles
- Interpret other collectors' works for evidence of aesthetic preferences and historical interests

# 4. The Critic

- Identify the role of the art critic in guiding tastes in the art market
- Recognize and practice the role of art criticism in the creative revision process

# 5. Art of Memory

 Identify and analyze artworks that represent a significant memory, experience, or event in the life of the artists

## 6. The Power of Influence

- Analyze how artists have been influenced by other individuals, styles, or events
- Assemble a portfolio of artworks that inspire the artistic process and explain the connection to personal artwork

Appendix A.2.f. Fine Arts Course Guides



Course Instructional Time: 170 hours

## **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

# **Semester A Summary:**

The middle school art program is organized around the three artistic processes of creating, presenting, and responding. In addition, the program emphasizes how art and design can drive innovation in the same way science, technology, engineering, and mathematics do. Throughout the courses, students use various media and techniques to construct projects, collaborate with peers, and critique their own work as well as the work of other artists.

In Semester A, students explore the wide range and variety of visual arts. They learn the basic elements of art and principles of design and apply them in their own creative ways. The semester culminates in a study of factors involved in evaluating and critiquing art.

#### **Semester A Outline**

## 1. Course Overview

1. Getting Started in Middle School Art

## 2. What Is Art?

- 1. Why Is Art Created?
  - Understand the purpose of creating art
  - Apply skills and knowledge to create works of art for a purpose
  - Analyze the choices made in all artistic decisions
- 2. Utilitarian or Aesthetic
  - Identify art made for utilitarian purposes and art that is made for aesthetic purposes
  - Produce a design that is either utilitarian or aesthetic
  - Compare designs to others of a similar nature
- 3. Communication Is the Key
  - Recognize what message various pieces of art communicate
  - Compare different art pieces to determine purpose and message
  - Evaluate the artist's success in conveying the intended message
- 4. The Importance of Creativity
  - Define creativity and why it is important
  - Apply skills to demonstrate creative ability

Appendices page 1898 Pennwood Cyber Charter School

Evaluate the success of artistic creations

## 5. Reviewing Purpose

- Reflect on the scope and diversity of visual arts
- Investigate the role of art as a means to better understand people and the world
- Establish a framework for evaluating works of art

# 3. The Essentials of Visual Arts

- 1. Reviewing the Elements
  - Describe and apply the elements of art
- 2. The Principles of Design
  - Describe each of the principles of design
  - Comprehend how those principles are used in art
- Versatile Lines
  - Identify basic lines
  - Demonstrate how those lines can be used to create each of the principles of design
- 4. Morphing Shapes
  - Identify basic shapes
  - Demonstrate how shapes can be used to create the principles of art
- 5. Pop Art
  - Recognize how color can be used as a tool for emphasis
  - Discuss the movement of pop art
  - Create pop art pieces that utilize color as emphasis
  - Justify choices made in the process of creating
- 6. The Value of Proportion
  - Summarize the basic concepts of facial proportions
  - Discuss the importance of contrast and value when creating art
  - Demonstrate understanding of facial proportions
  - Demonstrate the usage of contrast in value
- 7. Emphasizing Perspective
  - Review the basic concepts of perspective, emphasis, and unity
  - Construct a drawing that employs the concepts of perspective, emphasis, and unity
  - Evaluate the success of the drawing
- 8. Elements and Principles in Review
  - Experiment with the elements of art
  - Make original artwork through investigation and planning
  - Use the elements of art to evaluate the quality of artwork
  - Use experiences with art to interpret and critique artwork
  - Explain proper care and maintenance of art equipment and materials

# 4. The Application of Art

- 1. The Math Connection Tessellations
  - Describe how art is connected to math through the use of patterns and tessellations
  - Identify and create tessellation patterns
- 2. Art and Language Arts The Storyteller
  - Identify the connection between visual and verbal storytelling
  - Carry out the process of storytelling through creating a story map

- Create art based on a story map
- 3. Art and Science From Earth to Canvas
  - Identify materials used in creating art
  - Discuss how materials are created from natural resources
- 4. Social Studies and Art Decoding the Past
  - Describe how historical information is often recorded visually rather than verbally
  - Recognize what visual clues are present in modern society
  - Analyze the story that is interpreted based on the visual clues created by the artist
- 5. The Application of Art Review Quiz
  - Experiment with the principles of design to communicate ideas in original artwork
  - Analyze the effectiveness of the principles of design to convey ideas
  - Use personal experiences with design and artwork to interpret and create work that is crosscurricular
  - Explain the importance of experimentation and initiative when developing original artwork

# 5. Responding to Art

- 1. Responding to Criteria
  - Identify different genres of art
  - Understand different criteria for evaluating artwork
  - Create specific criteria to evaluate a genre of art
  - Analyze artwork based on criteria
- 2. Evaluating a Genre
  - Understand concepts that define a genre or a group of artwork
  - Develop ideas for evaluating a group of artwork based upon a particular genre
  - Evaluate artwork based upon the criteria established for the genre
- 3. Extending the Collection
  - Interpret a theme for a group of artwork
  - Create artwork based on a genre
  - Justify decisions
- 4. Presenting Your Message
  - Select art to represent a message
  - Create a collection based upon a message
  - Justify decisions made
- 5. Responding to Art Review
  - Apply appropriate criteria to analyze, select, and respond to art
  - Critique choices artists, designers, and curators make when creating or presenting artwork
  - Identify reasons why criteria used to evaluate artwork would vary
  - Analyze the traits of artwork that communicates effectively

#### **Semester B Summary:**

The middle school art program is organized around the three artistic processes of creating, presenting, and responding. In addition, the program emphasizes how art and design can drive innovation in the same way science, technology, engineering, and mathematics do. Throughout the courses, students use various media and techniques to construct projects, collaborate with peers, and critique their own work as well as the work of other artists.

In Semester B, students consider the preservation and protection of art. They then explore how international, national, and local art influences ideas, actions, cultures, and environments. Using this information, students build their own ideas

# **Semester B Outline**

#### 1. Course Overview

1. Getting Started in Middle School Art

# 2. Protecting and Respecting Art

- 1. The Evolution of Style
  - Analyze historical artwork from a cultural perspective
  - Examine art trends and styles across time and culture
  - Understand reasons for stylistic change
- 2. Pick Your Medium
  - Explain how and why artists choose a medium
- 3. Heritage Sites: Place Preservation
  - Explore World Heritage Sites and identify why they are important to preserve
- 4. With Great Art Comes Great Responsibility
  - Analyze the responsibilities artists have when they create and exhibit artwork
  - Understand the factors artists consider before they hang a piece for exhibition
- 5. Passive Observer Responsible Viewer?
  - Analyze the responsibilities of the viewer when looking at and responding to a work of art
- 6. A Path to Preservation and Respect
  - Analyze historical artwork from a cultural perspective
  - Examine art trends and styles across time and culture
  - Understand reasons for stylistic change
  - Explain how and why artists choose a medium
  - Explore World Heritage Sites and identify why they are important to preserve
  - Analyze the responsibilities artists have when they create and exhibit artwork
  - Understand the factors artists consider before they hang a piece for exhibition

#### 3. The World of Art

- 1. Harmonious Principles: The World of Chinese Art
  - Understand how philosophy and culture influenced the development of various art forms
  - Create artwork that illustrates aspects of philosophy and culture
- 2. Mathematics Meets Art: The Golden Ratio
  - Analyze the use of the golden ratio in art and architecture
  - Understand ways that the golden ratio has been a guiding principle in the art of multiple cultures
- 3. The Beast: Animal Representations in Art
  - Evaluate ways that animals are used in art to represent people or ideas
  - Compare animal art from different cultures
- 4. The Ideal: Representations of Soldiers and Saints
  - Identify the use of artistic composition techniques to elevate the status of strategic individuals in history
  - Analyze gesture and grouping of figures to interpret the relationships between them
- 5. The Creation of American Culture Through Art

 Analyze symbolic development of national identity through artwork in the early days of the American republic

#### 4. Art in Your Community

- 1. The Art of Money
  - Examine the images that compose currency from various countries and interpret what they say about national identity
  - Understand the technology and artistic methods used to manufacture currency
- 2. Monumental Sculptures: We Remember
  - Observe and analyze war memorials from various time periods and compare and contrast styles and purposes
  - Explore the purpose behind the creation of war memorials
- 3. Monumental Design
  - Analyze the process of monument design with an in-depth model
  - Analyze and discuss why symbolism and placement of artworks is important
- 4. Building Community: Architecture
  - Describe processes and techniques practiced by architects
  - Analyze ways architects send a message through structural elements
  - Create an architectural drawing
- 5. Community Art: Mundane to Magnificent
  - Analyze the purposes of a range of art
  - Understand methods used in the creation of a wide range of community art
  - Explore reasons creativity and beauty are important to human existence

## 5. Art in Your Life

- 1. Interior Landscapes: Designing a Room
  - Analyze ways that interior designers create a space for specific purposes
  - Compare interior designs from different time periods
  - Redesign a space to match a specific purpose
- 2. Reproductions: The Art and History of Printing
  - Compare and contrast printing technology and techniques from various times in history
  - Reflect on ways that printing has impacted the spread of ideas in images and text
- 3. Photography: Instant Art?
  - Analyze photographs across time and cultures for the ways they portray subjects and send a message through composition and techniques
  - Understand how photography has altered the way we create and share images
- 4. Convincing Images: The Art of Advertising
  - Analyze the role of art in creating effective advertisements
  - Learn about careers in the field of professional advertising
  - Discuss the choices advertising professionals make when crafting an advertisement with a specific message
- 5. Caring for the Environment: Recycled Art
  - Analyze the ways that artists use recycled media to communicate a message
- 6. Intersecting Art Forms
  - Analyze the ways that artists use mixed media to communicate a message
  - Create a mixed media piece that conveys a particular theme

Appendix A.2.f. Fine Arts Course Guides



Course Instructional Time: 170 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

# **Semester A Summary:**

The middle school art program is organized around the three artistic processes of creating, presenting, and responding. In addition, the program emphasizes how art and design can drive innovation in the same way science, technology, engineering, and mathematics do. Throughout the courses, students use various media and techniques to construct projects, collaborate with peers, and critique their own work as well as the work of other artists.

In Semester A, students explore the wide range and variety of visual arts. They learn the basic elements of art and principles of design and apply them in their own creative ways. The semester culminates in a study of factors involved in evaluating and critiquing art.

#### **Semester A Outline**

## 1. Course Overview

1. Getting Started in Middle School Art

## 2. What Is Art?

- 1. The Role of Inspiration
  - Define inspiration
  - Explore the role that inspiration plays in the creation of art
  - Evaluate personal inspiration factors
  - Create art based on personal inspiration
- 2. What Is Art to You?
  - Describe the various roles art has played through history
  - Interpret the purpose/role of various art pieces
  - Create art based on the role of preserving heritage
- 3. Creativity and Innovation
  - Define creativity and innovation
  - Investigate the role of creativity and innovation in the creation of art
  - Create art based on the concepts of creativity and innovation
- 4. What Type of Artist Do You Want to Be?
  - Explore the role played by art in the communication of ideas
  - Analyze the types of messages that prompt a personal response

Develop an art piece that effectively communicates a message you want to convey to others

#### 5. Art in Review

- Reflect on the scope and diversity of the visual arts
- Investigate the role of art as a means for better understanding people and the world
- Establish a framework for evaluating works of art

## 3. The Essentials of Visual Arts

- 1. Review of the Elements and Principles of Art
  - Define the elements and principles of art
  - Create tools that will help with understanding of the elements and principles

# 2. Billboard Designs

- Discuss the use of color to create emphasis and balance
- Create a design that utilizes the element of color to create emphasis and balance

# 3. A New Perspective

- Identify the steps and concepts of drawing in two-point perspective
- Describe the importance of value when drawing in perspective
- Create an image in two-point perspective that is harmonious
- Assess the success of the image created

# 4. Drawing the Human Body

- Define the correct proportions of drawing the human body
- Understand how basic shapes can be used to draw the different parts of the human body
- Create a drawing of the human body that utilizes value and texture correctly

# 5. Painting Contrast

- Define the concepts of color, value, and movement
- Create art based on the elements and principles of color, value, and movement
- Assess the success and purpose of the art piece created.

# 6. Reviewing the Essentials

- Experiment with the elements and principles of art
- Make original artwork through investigation and planning
- Use the elements of art to evaluate the quality of artwork
- Use experiences with art to interpret and critique artwork
- Explain proper care and maintenance of art equipment and materials

#### 4. Art Connections

# 1. The Math Connection

- Understand the connection between math and the visual arts
- Explore a correlation of math and art as a career field

# 2. Art and Language Arts

- Describe the connection between language arts and the visual arts
- Examine an example of the connection between the two arts

# 3. Social Studies and Art

- Relate the visual arts to the study of social studies
- Investigate the connection by analyzing current events that impact students

# 4. Art and Science

- Explain how the visual arts and sciences are connected through the field of conversation
- Create a product that exemplifies the connection between visual arts and sciences

#### 5. Art Connections Review

- Experiment with the principles of design to communicate ideas in original artwork
- Evaluate the relation between art and core subject areas
- Evaluate the impact of art on careers that relate to other subject areas
- Analyze the effectiveness of the principles of design to convey ideas through art
- Use personal experiences with design and artwork to interpret and create contemporary artwork
- Explain the importance if experimentation and initiative when developing original artwork and designs

# 5. Responding to Art

- 1. The Role of Inspiration
  - Develop criteria that identifies different styles of art
  - Develop evaluation criteria for artwork as it applies to a particular style

# 2. Creating a Portfolio

- List the characteristics of your artwork
- Justify decisions made in creating a portfolio of work

# 3. Creativity and Innovation

- Interpret artwork based upon your criteria
- Create artwork based upon your criteria
- Justify decisions regarding artistic choices

# 4. Presenting a Collection

- Select a piece of art to represent your skill and style
- Create art based your criteria
- Justify decisions regarding artistic choices

# 5. Responding to Art Review

- Analyze the traits of artwork that communicate effectively
- Apply appropriate criteria to analyze, select, and respond to art
- Critique choices made by artists, designers, and curators when creating or presenting artwork
- Identify reasons why criteria used to evaluate artwork vary

# **Semester B Summary:**

The middle school art program is organized around the three artistic processes of creating, presenting, and responding. In addition, the program emphasizes how art and design can drive innovation in the same way science, technology, engineering, and mathematics do. Throughout the courses, students use various media and techniques to construct projects, collaborate with peers, and critique their own work as well as the work of other artists.

In Semester B, students consider the preservation and protection of art. They then explore how international, national, and local art influences ideas, actions, cultures, and environments. Using this information, students build their own ideas of the role art plays in their lives.

## **Semester B Outline**

# 1. Course Overview

1. Getting Started in Middle School Art

# 2. Protecting and Respecting Art

1. External Memory: Art Reveals Culture

- Analyze art and artifacts that document the everyday life of a culture
- Identify and evaluate the cultural messages that artists send through their artwork
- 2. External Memory: Art Reveals Opinions
  - Analyze art and artifacts that document the major issues of a time and place
  - Identify and evaluate the ways that artists communicate cultural opinions through their artwork

#### 3. Advanced Art Preservation

Understand advanced science technology and techniques behind art preservation

#### 4. Nontraditional Art Preservation

- Analyze preservation methods for nontraditional and contemporary forms of art
- Evaluate examples of nontraditional art including installation and environmental art
- 5. Who Determines the Display?
  - Understand the factors that determine selection of artwork for preservation and exhibits
- 6. The Conservation Conundrum
  - Analyze the benefits and drawbacks of art preservation and restoration

#### 3. The World of Art

- 1. The Art of War
  - Interpret the role of art and artists during times of war
  - Analyze ways that artists use visual composition to create scenes of conflict

## 2. Engineering Empires

- Compare architecture and engineering developments across cultures
- Use inference to learn information about culture and government based on architectural records

#### 3. Democratic Architecture

- Analyze the visual and structural similarities between Greek architecture and buildings and sculptures in America
- Identify visual messages communicated by the elements of Greek architecture
- 4. Mass Art: Technology and the Industrial Revolution
  - Analyze the impact of technology and the Industrial Revolution on past and present art
  - Understand ways that technology has influenced the spread of art and artistic ideas
- 5. Designing a World: Engineering Movies
  - Compare the work of a set designer or special effects artist to an architect or city planner
  - Identify factors movie artists must consider to create a believable world
  - Understand careers of key movie professionals
  - Understand ways that culture is revealed in movies
- 6. Machu Picchu to Movies
  - Connect artworks with the underlying philosophies they represent
  - Compare and contrast architectures across cultures
  - Compare and contrast engineering and technological developments across cultures and time

# 4. Art in Your Community

- 1. Revealing Landscapes: Metropolis and Nature
  - Examine human-made and natural landscapes for clues about our relationship with the natural world

- Identify ways that artists from around the world represent culture and worldviews through landscapes or cityscapes
- Analyze ways that artists use various media and techniques to depict objects in the space of a landscape or cityscape

# 2. The Art of Public Spaces

- Explore the purpose, meaning, and uses of public spaces
- Analyze the design and symbolism of public spaces for clues about values and culture

## 3. Wearable Art

- Analyze fashions across time for clues about values and culture
- Outline the tasks of professional fashion artists and the ways they use principles of art and design to create clothing

# 4. The Artist as Inventor

- Compare traits that artists and inventors have in common
- Analyze and explore ways that artists have used their creativity to produce meaningful inventions

## 5. Art to Teach, Art to Heal

- Compare the skills and job responsibilities of art educators and art therapists
- Analyze the unique ways that art educators and art therapists use art to teach and heal in a community

# 6. Multiple Paths to Creativity

- Analyze and review different types of outlets for artistic creativity
- Create a portfolio that demonstrates exploration and skill in your preferred method of artistic creativity

#### 5. Art In Your Life

- 1. Textile Art: The Fabric of Your Life
  - Examine the techniques and materials that are used in the creation of textiles
  - Analyze textiles to see how artists from various locations use elements of art such as pattern, repetition, form, and balance to send messages about culture and value

# 2. Take a Seat On a Work of Art

- Examine furniture from different cultures and time periods for its purpose, design, and materials
- Analyze ways that artists have used balance, repetition, rhythm, color, and form to create unity in furniture design

## 3. The Art of Illustration

- Identify the ways that illustration is used to visualize a story or message
- Explore and analyze messages sent through various types of illustration such as books and illuminated manuscripts

#### 4. Finding Inspiration: Artistic Motivation

- Identify and analyze motivating factors, inspirations, methods, and materials for young artists
- Create a portfolio of your inspirations, motivations, and preferred methods and materials

# 5. Art of Your Generation

- Identify and analyze motivating factors, inspirations, methods, and materials for young artists
- Create a portfolio of your inspirations, motivations, and preferred methods and materials

# Art K



## Art K

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

### **Course Summary:**

In this course, the student will explore color, line, and shape. A combination of interactive and hands-on studio projects encourages the student to create art, sharpen fine motor skills, and explore areas of interest in art. Artistic modes include drawing, painting, assembling, and sculpting.

## **Course Outline**

## 1. Art Is Everywhere

- 1. Art Is Everywhere!
  - Identify and describe the five elements of shape in the environment and in artworks
  - Illustrate the five elements of shape using finger paints
- 2. Let's Draw Lines
  - Draw variations of lines
  - Draw straight lines using a ruler
  - Create art using crayons, markers, and lines
- 3. Lots and Lots of Dots
  - Create a mixed-media collage using cut-out paper dots and dot-shaped objects
- 4. Art Around the World
  - Create a Diwali pattern using chalk
  - Describe a family tradition
- 5. Learning to See and Draw Like an Artist
  - Observe and recreate elements of shape using a pencil
  - Create original collage art using an online program
  - Demonstrate creativity and knowledge of elements of shape in a collage
- 6. Elements of Art
  - Create original artwork using the five elements of shape
  - Select and use a variety of media to create art
  - Use the numbers 1–5 in original artwork

### 2. Coloring the Season

#### 1. Colors All Around Us

- Identify warm and cool colors
- Identify primary and secondary colors
- Identify opposite colors
- Create original artwork using warm and cool colors

### 2. Fluttering Colors

- Demonstrate beginning awareness of the concept of symmetry as a mirror image
- Describe migration and why monarch butterflies migrate
- Create a watercolor painting of a monarch butterfly

### 3. See and Draw Like an Artist

- Observe and recreate the elements of shape and mirror images using pencil
- Create a still life arrangement which demonstrates emerging awareness of balance and space

## 4. Autumn Arrangement

- Create a fall-themed table centerpiece using objects found in nature and around the house
- Demonstrate emerging awareness of balance and space in an artwork

## 5. Painting the Seasons

- Paint a fall scene using watercolors and crayons
- Demonstrate emerging awareness of space and balance within an artwork
- Demonstrate understanding of warm and cool colors by utilizing them appropriately within an artwork
- Demonstrate emerging awareness of a horizon line

## 3. Winter Is Taking Shape

## 1. Shapes in Art

- Identify and draw basic shapes: circle, oval, triangle, square, and rectangle
- Create a mosaic design using crayons and black marker

## 2. Snowflakes

- Create snowflakes by cutting shapes into coffee filters
- Identify and create patterns

## 3. It's Wintertime!

- Create a mixed-media snowman using paint, objects, and glue
- Identify and use texture in an original artwork

#### 4. See and Draw Like an Artist

- Observe and recreate the elements of shape using pencil
- Create patterns with shape

#### 5. Art Around the World

- Create a kite that shows shapes, pattern, and balance
- Demonstrate understanding of mixed media, texture, pattern, and basic shapes

### 4. Art Forms

# 1. Clay Animals

- Identify elements of shape in sculptures
- Relate sculptures to history and cultures
- Create an animal sculpture using clay and the elements of shape

#### 2. Carnival Mask

Create an animal mask using mixed media

- Describe a mixed-media artwork
- 3. Learning to See and Draw Like an Artist
  - Use mental imagery to visualize artwork
  - Observe and recreate the elements of shape using pencil
  - Demonstrate balance and space in an artwork composition
- 4. Art Around the World
  - Create an artwork using twigs, yarn, and glue
  - Describe the traditions of the Bulgarian "Baba Marta" celebration
  - Identify the elements within artworks
- 5. Abuela Mural
  - Describe a mural
  - Design a mural using paint and observation
  - Identify elements of art within an illustration
- 6. Art All Around Us
  - Create a playground scene using sculpture techniques
  - Identify and use mixed-media in an original artwork

# 5. Springtime Painting

- 1. It's Springtime
  - Define watercolor artwork
  - Create a painting using watercolors
  - Identify the five elements of art used in a watercolor painting
- 2. Blooming Flowers
  - Create a vase of flowers using mixed media
  - Identify the five elements of art in your artwork
- 3. Learning to See Like an Artist
  - Use mental imagery to visualize artwork
  - Create an original watercolor
  - Demonstrate balance and space in an artwork composition
- 4. Egg Carton Monsters
  - Create recycled artwork using mixed media
  - Define recycled materials
  - Identify the types of media used in a mixed-media artwork
- 5. Art Around the World
  - Create a traditional mud painting
  - Differentiate between patterned and non-patterned sequences
  - Examine the link between family traditions and the art connected with those traditions
- 6. Painting Shapes
  - Categorize the five elements of shape
  - Create texture in artwork
  - Create an original artwork using finger and sponge painting

## 6. Summertime Art

- 1. Here Comes Summer
  - Classify colors as either warm or cool
  - Identify warm and cool colors found in nature during summertime

Draw a summer nature scene using warm and cool colors

## 2. Outdoor Art

- Identify natural objects to be used in artwork
- Use sun-printing techniques to create an original artwork
- Describe textures found in nature

## 3. See and Draw Like an Artist

- Use mental imagery to visualize artwork
- Draw a duplication image of summer shapes using the basic elements
- Create an original online drawing using natural elements
- Analyze how the 5 elements of shape were used in an original artwork

#### 4. Art Around the World

- Discuss cultural traditions of the Inti Raymi celebration in Ecuador
- Create a model of a sun flag from Ecuador

# 5. Cooking Up Crayons

- Identify different colors
- Use primary colors to create secondary colors
- Draw a picture using newly-created tools

### 6. My Art

- Use elements of shape to create an original artwork
- Incorporate cool and warm colors into an original artwork
- Identify primary and secondary colors in an original artwork

Pennwood Cyber Charter School Application

# **Discovering Music I**



# **Discovering Music I**

Course Instructional Time: 85 hours

### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

## **Course Summary:**

Designed for students in grades 3–5, this course teaches fundamental musicianship skills from a Western-Classical approach, while aligning to the National Core Arts Standards. The course challenges the student to improve listening, notation, analysis, performance, and improvisation skills. With audio, visual, and interactive technologies, this course provides a unique and advanced learning experience.

## **Course Outline**

## 1. Expressing Groovy Beats

- 1. Welcome to Music
  - Identify music as a way to communicate ideas and feelings
  - Recognize and reproduce pitch, beat, and rhythm in music
  - Compose music using two different pitches
- 2. Writing a Groovy Beat
  - Recognize and produce a steady beat
  - Differentiate between whole notes, half notes, quarter notes, and pairs of eighth notes for simple rhythms
  - Create, play, and sing a variety of rhythmic patterns
- 3. Quicker Rhythms
  - Recognize and produce a steady beat
  - Differentiate among eighth notes, half notes, and quarter notes for simple rhythms
  - Create, play, and sing a variety of rhythmic patterns
  - Understand and create using improvisation
- 4. Silence

- Identify notation for simple rhythmic rests
- Play and sing a variety of rhythmic patterns

### 5. Loud and Soft

- Identify the notation of dynamics in music
- Articulate dynamic contrast in performance and practice
- Order dynamic markings from softest to loudest

# 6. The Ruler of Time

- Identify the different time signatures found in music
- Compose using a variety of time signatures

## 7. Ticktock

- Describe a metronome and identify its purpose
- Identify a variety of speed indications in music
- Demonstrate speed variations in performance and practice

## 8. Buttons and Ties

- Identify and articulate dotted rhythms
- Identify the result of tying notes together in music notation

# 9. Expressing Groovy Beats Unit Review

- Review all previous concepts and objectives for Unit 1
- Take the unit test
- 10. Expressing Groovy Beats Unit Test

## 2. Musical Palette

## 1. A Musician's Palette

- Identify the components of pitch
- Contrast the functions of melody and harmony
- Create melodies and melodic shapes using high and low pitches
- Compose a musical story using high and low pitches

### 2. Grand Staff

- Identify the grand staff (treble and bass clef)
- Identify and notate pitches on a treble staff and bass staff

# 3. Step Ladder

- Identify sharps and flats
- Explain how sharps and flats change pitch
- Compose a musical selection including sharps, flats, and repeated pitches

# 4. Catchy Tunes

- Identify the components of pleasing melody
- Describe the length and structure of a phrase
- Adapt phrasing in performance and practice
- Compose a short melody that includes phrases

## 5. Major

- Identify structure of a major scale using whole and half steps
- Aurally differentiate between tonic and dominant

Notate short melodies using the first five notes of the C major scale

## 6. Solfège

- Introduce solfège system and syllables
- Apply solfège syllables to the major scale by singing and performing hand gestures
- Notate pitches, rhythms, and solfège syllables for a given musical example

#### 7. Minor

- Identify the structure of minor scales
- Differentiate between major and minor scales
- Notate pitches, rhythms, and solfège syllables in minor tonality

# 8. The Key

- Differentiate and identify major and minor key signatures
- Analyze key signatures in repertoire

### 9. Articulation

- Identify the common articulation marks found in music
- Practice and perform using proper articulation
- Notate pitches, rhythms, and articulations in a given audio example
- Compose a short piece using three different articulations

# 10. Unit 2 Composition Portfolio

- Compose a short piece of music combining concepts from Unit 1 and 2, including the notation of a melody using elements of pitch, rhythm, articulation, and musical expression
- Sing a composed melody with solfège and hand gestures, and play it on the virtual instrument

#### 11. Musical Palette Unit Review

- Review melody, pitch, harmony, scales, key signatures, and articulations
- Prepare for the Musical Palette Unit Test

#### 12. Musical Palette Unit Test

### 3. Instrument Family Reunion

## 1. Welcome to the Orchestra

- Identify the sections of an orchestra
- Identify the role of a conductor
- Play a musical selection using more than one instrumental sound

## 2. Strings

- Identify the timbre of stringed instruments
- Identify the instruments within the strings family
- Differentiate between bowed and plucked strings
- Identify string instruments from other cultures
- Sight-read and compose two-, three-, and four-measure musical examples

### 3. Woodwinds

- Identify the blowing techniques in woodwind instruments
- Identify the instruments within the woodwind family

- Compare western-classical instruments to woodwind instruments from other time periods and cultures
- Sightread, notate, and/or compose a short musical example of 2–4 measures

# 4. Brass

- Identify the material and blowing (vibrating) technique of brass instruments
- Identify the instruments within the brass family
- Describe traditional uses for brass instruments
- Sightread, notate, and compose a melody

# 5. Percussion

- Identify the instruments within the percussion family
- Differentiate between pitched and non-pitched percussion
- Sightread and notate six measures of timpani music in bass clef
- Compose short rhythm patterns at varying tempos

# 6. Keyboards

- Identify the history of keyboard instruments
- Differentiate between mechanisms in piano and harpsichord
- Identify the instruments within the keyboard family
- Sightread five measures of piano music
- Notate a brief musical passage as performed by a pianist

## 7. Electronic Instruments

- Describe programming and how it is used in electronic instruments
- Identify common devices that also serve as electronic instruments
- Sightread a short musical example
- Compose a short musical selection using sampled water sounds

### 8. The Band

- Identify standard instruments found in a wind ensemble
- Compare and contrast the orchestra and marching band
- Sightread and notate a short musical example

## 9. Composition Portfolio

- Compose a short piece of music with instrumentation and musical elements inspired by descriptive titles
- 10. Instrument Family Reunion Unit Review
- 11. Instrument Family Reunion Unit Test

# 4. Traveling Through Time: A Musical Journey

- 1. Introduction to Music History
  - Identify and understand the style periods of western classical music
- 2. Early Western Classical Styles
  - Identify important composers and styles from the Renaissance era
  - Differentiate between sacred and secular music
  - Identify the Mass
  - Compose a short melody of four to eight measures in the Renaissance style of music

## 3. Baroque I

- Identify key elements that began the Baroque style
- Identify important composers and styles from the Baroque period

## 4. Baroque II

- Identify important composers and pieces from the Baroque period
- Identify the musical form cantata
- Identify compositional structure of a fugue
- Compose a short variation of a fugue theme

#### Classical I

- Describe the transitional elements from the Baroque style to the Classical style
- Identify important composers and pieces from the Classical period
- Identify and demonstrate the concerto in the Classical period

## 6. Classical II

- Identify important composers and styles from the Classical period
- Identify the classical symphony and its structure

#### 7. Romantic I

- Describe the transitional elements from the classical style to the Romantic style
- Identify important composers and pieces from the Romantic period
- Analyze the use of word painting in standard repertoire
- Compose a short melody that includes word painting

#### 8. Romantic II

- Identify important composers and styles from the Romantic period
- Identify compositional styles used during the Romantic period
- Analyze and describe a standard tone poem

# 9. Modern

- Describe how Modern techniques evolved
- Identify and understand avant-garde and Futurism music and concepts
- Understand the musical concepts of John Cage

#### 10. Modern II

- Describe development of minimalism
- Identify minimalist music
- Explore modern compositional techniques by studying Steve Reich and Philip Glass
- 11. Traveling Through Time: A Musical Journey Review
- 12. Traveling Through Time: A Musical Journey Test

Pennwood Cyber Charter School Application

# **Discovering Music II**



## **Discovering Music II**

Course Instructional Time: 85 hours

### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

## **Course Summary:**

Designed for students in grades 3–5, this course builds on fundamental musicianship skills introduced in Discovering Music I. Aligning to the National Core Arts Standards, the course teaches the student to explore new concepts in rhythm and notation, as well as improve listening, notation, analysis, performance, and improvisation skills. The student will use a basic understanding of the orchestra to explore instrumentation and orchestration in more depth, and analyze compositional style from a range of periods. With audio, visual, and interactive technologies, this course provides a unique and advanced learning experience. Discovering Music I is a prerequisite for this course.

## **Course Outline**

## 1. Rock-Solid Rhythm

- 1. Back to the Basics
  - Review the note values, rests, and meters learned previously
  - Recognize note values and rests by sight and by sound and demonstrate understanding through use in musical performance and composition
  - Compare the value in beats of different rhythmic patterns
  - Check rhythmic notation for incomplete measures and make them complete
  - Compose and perform rhythmic notation

#### 2. Short and Sweet

- Recognize sixteenth notes and use them in reading and performing rhythmic patterns
- Combine sixteenth notes with other note values and rests to compose and play a variety of rhythmic patterns
- Compare the value in beats of different rhythmic patterns, including those with sixteenth notes
- Check rhythmic notation for incomplete measures and make them complete
- Demonstrate subdividing the beat

## 3. Getting in Groups

Recognize eighth rests and sixteenth rests

- Identify new rhythmic figures containing sixteenth notes and eighth notes
- Compare rhythmic figures and patterns of different lengths
- Demonstrate correct use of new rhythmic figures in performance

## 4. Connecting the Dots

- Recognize dotted quarter notes and use them in reading and performing rhythmic patterns
- Compare the value in beats of different rhythmic patterns, including those with dotted quarter notes
- Check rhythmic notation for incomplete measures and make them complete

### 5. Off the Beaten Path

- Identify syncopation in music
- Demonstrate understanding of syncopation through listening, reading, and playing syncopated rhythms
- Identify the ragtime style of music
- Describe a musical style with syncopation and compose story elements to go along with it

# 6. Swing It

- Identify the style, sound, and feel of swing
- Demonstrate understanding of the swing style through listening, reading and improvising swing rhythms
- Compare rhythms performed straight and in a swing style

### 7. A Different Kind of Time

- Explain compound meter
- Perform rhythmic notation in compound meter
- 8. Rock-Solid Rhythm Unit Review
  - Review all previous concepts and objectives for Unit 1
- 9. Rock-Solid Rhythm Unit Test

## 2. Musical Tapestry

- 1. Which Pitch?
  - Memorize the location of pitches on the grand staff
  - Develop an expanded reading range above and below the grand staff through ledger lines

## 2. Intervals

Memorize intervals visually and aurally

## 3. A Major Mood

- Memorize the major scale pattern
- Construct major scales and identify tonic, subdominant, and dominant tones within the scale
- Check notation of major scales for accuracy
- Describe mood in music
- Map ascending and descending direction of notes within a major melody

## 4. A Minor Mood

- Memorize the minor scale pattern
- Construct minor scales and identify tonic, subdominant, and dominant tones within the scale
- Check notation of minor scales for accuracy
- Describe mood in music
- Map ascending and descending direction of notes within a minor melody

# 5. The Keys, Please

Identify and memorize key signatures

- Recognize the relationship between key signatures in the circle of fifths
- Analyze music to distinguish related key signatures as major or minor

#### 6. Three of a Kind

- Define triads and classify their quality
- Recognize triads visually and aurally
- Construct triads

### 7. Composition/Improvisation Portfolio

- Use the major and minor scales to compose and improvise in musical phrases
- 8. Following the Leader
  - Recognize a common chord progression visually and aurally
  - Describe the sound and feel of chord tension and resolution
- Musical Tapestry Unit Review
  - Review all previous concepts and objectives for Unit 2
- 10. Musical Tapestry Unit Test

#### 3. Colors of the Orchestra

- 1. Instrument Families
  - Recognize instrument families aurally and visually
  - Organize instruments into families
  - Distinguish between sounds of individual instruments
  - Distinguish types of ensembles through aural recognition

## 2. Bring the Strings!

- Recognize string instruments visually and aurally
- Describe sound characteristics and physical features of individual instruments in the string family
- Organize instruments in the string family by voice range

## 3. Woodwinds

- Recognize woodwind instruments visually and aurally
- Describe sound characteristics and physical features of individual instruments in the woodwind family
- Organize instruments in the woodwind family by single or double reed
- Compose a variation of a melody

#### 4. Brass

- Recognize brass instruments visually and aurally
- Describe sound characteristics and physical features of individual instruments in the brass family
- Compare voice ranges of instruments in the brass family and organize instruments from low to high

#### 5. Percussion

- Recognize percussion instruments visually and by description
- Describe sound characteristics, physical features, and construction of percussion instruments
- Classify instruments of the percussion family as pitched or nonpitched
- Identify roles of percussion instruments in different types of ensembles
- Improvise a rhythm section with percussion instruments

#### 6. Keyboard

- Describe the development of keyboard instruments throughout history
- Describe the role of keyboard instruments in ensembles and as a solo instruments

- Recognize keyboard instruments aurally and by description
- Compare the classification of keyboard instruments in different instrument families

#### 7. The Art of Arranging

- Define arranging and describe considerations of instrumentation
- Analyze instrumentation of repertoire
- Arrange music for multiple instruments

### 8. The Role of the Conductor

- Describe the role of the conductor
- Describe the development of the role of the professional conductor
- Execute basic conducting patterns

# 9. Composition Portfolio

- Compose music for multiple instruments using a variety of musical elements, including pitch, rhythm, dynamics, articulation, and key
- Make external associations with instruments

#### 10. Colors of the Orchestra Unit Review

- Review all previous concepts and objectives for Unit 3
- 11. Colors of the Orchestra Unit Test

### 4. Musical Makings

- 1. Composer Spotlight: The Baroque Period
  - Describe the influences and ideals of the Baroque period
  - Identify George Frideric Handel as a major figure of the Baroque period and describe his contributions
  - Examine repertoire for characteristics of Baroque style

### 2. Composer Spotlight: The Classical Period

- Describe the influences and ideals of the Classical period
- Identify Wolfgang Amadeus Mozart as a major figure of the Classical period and describe important works
- Examine repertoire for characteristics of Classical style

## 3. Composer Spotlight: The Romantic Period

- Describe the transitional time between the Classical and Romantic periods
- Identify Franz Schubert and Johannes Brahms as major composers of the Romantic period
- Compare characteristics from different style periods
- Examine repertoire for characteristics of Romantic style
- Compose in the style of the Romantic lied

# 4. Composer Spotlight: The Twentieth Century

- Describe reactions to the Romantic period that led to Impressionism
- Describe the influence and style of the music of Claude Debussy and Maurice Ravel
- Compare the music of Debussy and Ravel with art from the same period
- Examine repertoire for Impressionist characteristics

## 5. Composer Spotlight: Atonality

- Identify compositional characteristics in works by composers from the twentieth and twentyfirst centuries
- Describe atonality and Arnold Schoenberg's style of 12-tone music
- Compose music using Schoenberg's concept of the tone row
- 6. Musical Makings Unit Review

- Review all previous concepts and objectives for Unit 4
- 7. Musical Makings Unit Test

Pennwood Cyber Charter School Application

# **Discovering Music III**



## **Discovering Music III**

Course Instructional Time: 85 hours

### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

## **Course Summary:**

Designed for students in grades 3–5, this course enhances the student's knowledge of musical cultures as he or she discovers a musical identity. Aligning to the National Core Arts Standards, this course provides the student with engaging opportunities to combine musical knowledge with an exploration of different art forms to create new personal works. The student will apply foundational knowledge of music to a variety of musical styles and cultures. With audio, visual, and interactive technologies, this course provides a unique and advanced learning experience. Discovering Music I and Discovering Music II are prerequisites for this course.

## **Course Outline**

### 1. Creative Foundations

- 1. Back to the Top
  - Classify music according to its music style
  - Identify the role musicians play in society today and through history
- 2. Rhythmic Precision
  - Differentiate between multiple rhythmic values
  - Perform a variety of rhythmic patterns
- 3. Accenting Rhythms
  - Compose a work using a variety of rhythmic values
- 4. Silence Is Golden
  - Identify notation for rests
  - Play and sing different rhythmic patterns that incorporate a variety of rests
  - Differentiate among multiple rhythmic values
- 5. The Grand Staff
  - Identify notes on the grand staff
  - Label the clefs on the grand staff
  - Perform a variety of melodic patterns

## 6. One Step at a Time

- Identify a half step visually and aurally
- Differentiate enharmonic spellings

## 7. Major Keys

- Construct a major scale
- Differentiate between whole steps and half steps visually and aurally

## 8. Scale Singing

- Construct scales using appropriate solfège and hand signs
- Perform using correct solfège and hand signs

## 9. The Key Signature

- Perform a work that changes key
- Identify key signatures
- Construct major scales based on key signatures

## 10. Minor Keys

- Analyze the quality of minor scales aurally
- Construct minor scales based on their key signature
- Identify major and minor parallels

## 11. Making Melodies

- Identify tools composers use to create melodies
- Analyze the components of a compelling melody

### 12. Melodic Master

- Analyze artistic intentions through a composition
- Demonstrate advanced composition techniques
- Create an original melody

## 13. Creative Foundations Unit Review

- Review Unit 1 topics
- 14. Creative Foundations Unit Test

## 2. Many Musical Roles

- 1. Roles and Responsibilities
  - Describe the relationship between composer, performer, and listener
  - Compare and contrast different types of composers, performers, and listeners

## 2. The Composer

- Describe the relationship between the composer and the audience
- Identify the questions a composer may ask him/herself while composing
- Compose a piece of music based on given criteria

## 3. The Performer

- Identify the role of the performer in the musical community
- Compare performances of a composition

## 4. The Listener

- Describe the role of the listener
- Identify characteristics of a sophisticated listener
- Critique musical compositions from a compositional and performance standpoint

#### Musical Careers

Identify job opportunities related to music

## 6. Inspiration

- Define and explain the term muse
- Analyze music to determine inspiration

## 7. A Musical Society

- Describe the importance of music in other art forms
- Describe the history of music patronage
- Compose a piece of music based on given criteria

## 8. The Role of Improvisation

- Describe the role of improvisation to each musician
- Identify the necessary skills for an improviser
- Improvise a composition to accompany a scene

## 9. Many Musical Roles Unit Review

- Review Unit 2 topics
- 10. Many Musical Roles Unit Test

#### 3. Musical Influences

- 1. You Be the Judge
  - Compare and contrast objective and subjective judgments

# 2. Everyone's a Critic

- Describe the role of a critic
- Evaluate a musical performance

## 3. Fusing Music

- Describe fusion in music
- Use the voice to create an example of fusion

## 4. Innovation

- Describe tradition as it relates to musical culture
- Identify elements of innovation in music
- Transform an existing melody into an innovative composition

## 5. Against the Grain

- Describe the role of the Doctrine of the Affections in Baroque music
- Describe contributions by composers who did not conform to rules

## 6. Art Inspired

- Describe the influence of art on music
- Analyze the imagery used in Mussorgsky's Pictures at an Exhibition
- Compose a piece of music based on given criteria

#### 7. Impressionism

- Describe characteristic traits of Impressionist music and art
- Improvise a composition inspired by art

## 8. Twentieth-Century Web

- Describe characteristics of different genres of music from the 20th century
- Create a Futurist composition

# 9. Technology and Music

Compare differences in current and older technology

#### 10. MIDI

Describe the use of MIDI in music

### 11. Lyrics

- Describe the structure of lyrics
- Deduce and outline song structure from the analysis of song recording
- Identify and describe the use of chosen music elements that express the mood of a given set of lyrics

## 12. Writing Lyrics

Create a set of lyrics following a rhyme scheme

#### 13. Musical Influences Unit Review

- Review Unit 3 topics
- 14. Musical Influences Unit Test

## 4. A Musical Community

- 1. Musical Meditation
  - Describe reasons people listen to music other than for enjoyment
  - Describe the meditative process as it relates to music
  - Compose lyrics for an existing melody

### 2. Music and Language

- Identify the origin of a piece of music based on characteristics
- Describe musical "grammar and vocabulary" or characteristics of select music forms and genres
- Compose a series of call-and-response musical phrases

## 3. Music and Culture

- Describe how the purpose of music differs across cultures
- Describe ethnomusicology
- Identify how cultural traditions influence composers

#### 4. Folk Forms

- Describe instruments used in folk music from different cultures
- Respond to music with art that represents characteristics of that music

### 5. Evolution of Rock

- Describe the evolution of rock music
- Analyze images that show the cultural style of rock
- Sightread lead guitar and rhythm melodies from rock music

# 6. Cultures Today

- Describe characteristics of electronic and hip-hop music
- Play a melody using a synthesizer

# 7. Your Own Drum

- Develop criteria for assessing different musical works
- Analyze likes and dislikes about a given musical work

## 8. Recording the Future

- Describe how music has been distributed over the last 100 years
- Describe the evolution of rock and classical music
- Play a song by ear using the virtual instrument

## A Musical Community Unit Review

- Review Unit 4 topics
- 10. A Musical Community Unit Test

Pennwood Cyber Charter School Application

# **Experiencing Music I**



## **Experiencing Music I**

Course Instructional Time: 85 hours

## **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

This course is designed for students in grades K-2 and explores differences between music and everyday sounds, and also how the body hears and responds to music. Aligning to the National Core Arts Standards, the course introduces skills that assist the student in making music individually and with another person. The student will identify instrument characteristics and sounds and begin to consider the way music of the student's own culture might sound different to a person from another culture. With audio, visual, and interactive technologies, this course provides a unique and advanced learning experience.

## 1. Music and Me!

- 1. What Is Music?
  - Differentiate between sounds in everyday life and musical patterns, highlighting aspects unique to music such as organized rhythmic patterns and recognizable melodies
  - Execute a steady beat through clapping and snapping along with a recording
- 2. Move to the Beat!
  - Explore ways in which the body responds to, listens to, and creates music
  - Perform a steady beat on a musical instrument
  - Demonstrate full body movement while warming up
- 3. Getting the Rhythm!
  - Explore ways in which the body responds to, listens to, and creates music
  - Practice a variety of activities to begin developing skills relating to the following: responding to a
    visual cue, responding to an auditory cue, singing individually, and singing with another person
  - Sing ta and ti rhythm patterns
  - Improvise a rhythm around a steady beat
- 4. Time to Sing!
  - Explore ways in which the body responds to, listens to, and creates music
  - Practice a variety of activities to begin developing skills relating to the following: responding to a
    visual cue, responding to an auditory cue, performing individually, and performing with another
    person

- Perform a simple melody, synchronized to a steady beat alongside a recording (matching tempo, pulse, and simple pitch variations by singing/playing)
- Perform a scale on the Virtual Xylophone

## 5. Making Music Together!

- Explore ways in which the body responds to, listens to, and creates music
- Practice a variety of activities to continue developing skills relating to the following: responding to a visual cue, responding to an auditory cue, performing individually, and performing with another person
- Perform a simple melody, matching tempo, rhythm, and simple pitch variations
- Perform "Hot Cross Buns" using the Virtual Xylophone and voice

#### 6. Music and Me! Unit Review

- Review all previous concepts and objectives for Unit 1
- 7. Music and Me! Unit Test

## 2. Fast and Slow, Stop and Go

## 1. Getting the Beat!

- Develop a degree of motor control (stop and go) as a precursor for performance of simple rhythmic patterns on an instrument
- Practice and perform a steady beat using ta
- Sing a melody along with a rhythmic pattern

## 2. Breaking It Down

- Develop a degree of motor control (stop and go) as a precursor for performance of simple rhythmic patterns on an instrument
- Identify rhythmic patterns using ta and ti-ti
- Create rhythmic patterns using ta and ti-ti

## 3. Taking a Rest

- Develop a degree of motor control (stop and go) as a precursor for performance of simple rhythmic patterns on an instrument
- Recognize craft-stick notation for ta, ti-ti, and rest
- Perform a nursery rhyme in rhythm

## 4. Rhythms on the Virtual Xylophone

- Develop a degree of motor control (stop and go) as a precursor for performance of simple rhythmic patterns on an instrument
- Recognize craft-stick notation for ta, ti-ti, and sh
- Perform rhythmic patterns using ta, ti-ti, and sh on the Virtual Xylophone
- Compose rhythmic patterns with melodies

#### 5. Slow as a Tortoise

- Recognize and perform craft-stick notation for ta, ti-ti, and rest on the Virtual Xylophone
- Identify different tempos
- Connect tempo to mood and emotion
- Compose and play a song with a slow tempo

## Fast as a Hare!

- Recognize and perform craft-stick notation for ta, ti-ti, and rest on the Virtual Xylophone
- Identify different tempos
- Connect tempo to mood and emotion
- Compose and play a song with a fast tempo

## 7. Changing Tempos

- Recognize and perform craft-stick notation for ta, ti-ti, and rest on the Virtual Xylophone
- Recognize changes in tempo both among different compositions and within a composition
- Compose and play a composition with tempo changes on the Virtual Xylophone

## 8. Fast and Slow, Stop and Go Unit Review

- Review all previous concepts and objectives for Unit 2
- 9. Fast and Slow, Stop and Go Unit Test

# 3. High and Low, Loud and Soft

#### Notes on a Ladder

- Identify, sing, and play C (do) on the Virtual Xylophone
- Perform rhythmic patterns using ta, ti-ti, and sh/rest
- Compose a one-note song for the Virtual Xylophone

## 2. High and Low

- Differentiate sounds that are higher and lower in pitch in relation to each other
- Identify, sing, and play D (re) on the Virtual Xylophone
- Compose and perform a two-note melody on the Virtual Xylophone

#### 3. Loud and Soft

- Define and recognize changes in dynamics
- Identify, sing, and play E (mi) on the Virtual Xylophone
- Perform "Mary Had a Little Lamb" on the Virtual Xylophone
- Compose and perform a three-note melody on the Virtual Xylophone

#### 4. A Little Bit Loud

- Recognize changes in dynamics
- Identify, sing, and play F (fa) on the Virtual Xylophone
- Perform a song on the Virtual Xylophone
- Improvise a four-note melody on the Virtual Xylophone

#### 5. A Little Bit Soft

- Demonstrate changes in dynamics
- Identify, sing, and play G (sol) on the Virtual Xylophone
- Recognize dynamics differences in a classical rep composition
- Sing and perform "Jingle Bells" on the Virtual Xylophone

## 6. Twinkle, Twinkle, Little Star

- Demonstrate changes in dynamics
- Identify, sing, and play A (la) on the Virtual Xylophone
- Recognize dynamic, tempo, and pitch differences in a classical rep composition
- Sing and perform "Twinkle, Twinkle, Little Star" on the Virtual Xylophone
- Compare and contrast the same rhythmic pattern played on different pitches

## 7. A Full Scale

- Demonstrate changes in dynamics
- Identify, sing, and play B (ti) and C (do) on the Virtual Xylophone
- Recognize dynamic, tempo, and pitch differences in a classical rep composition
- Sing and perform "Three Blind Mice" on the Virtual Xylophone
- Compose several songs using different pitches with the same rhythmic pattern

## 8. High and Low, Soft and Loud Unit Review

Review all previous concepts and objectives for Unit 3

9. High and Low, Soft and Loud Unit Test

# 4. Music Around The World

- 1. Starting a Trip Around the World
  - Describe beat, rhythm, tempo, dynamics, and the scale
  - Analyze a performance of "Are You Sleeping?"
  - Compose and perform a song about a sleeping animal
- 2. Rhythms of Latin America
  - Execute fine motor movement while performing rhythmic patterns on an instrument
  - Compare and contrast songs from different cultures using the same melody
  - Create a set of maracas
  - Improvise a rhythmic accompaniment to a song
- 3. Asian Music and Drama
  - Compare and contrast uses of a single melody in different cultures
  - Create a traditional Noh theatre mask
  - Perform a dance to traditional Japanese music
- 4. Exploring Europe
  - Describe how emotions are expressed through and connected to music
  - Identify the waltz beat
  - Compose and perform a melody for a waltz
- 5. Arriving in Australia
  - Identify instruments from various cultures
  - Build and create sounds with a didgeridoo
  - Compose and perform an original composition about an animal
- 6. African Music Adventure
  - Perform multiple rhythmic patterns over the same beat
  - Create a dance to a traditional African beat and instrument
- 7. Share Your Own Culture
  - Describe the student's family and culture
  - Compare and contrast various cultures
  - Compose and perform a song about the student's own culture
- 8. Unit Review
  - Review all previous concepts and objectives for Unit 4
- 9. Music Around the World Unit Test

Pennwood Cyber Charter School Application

# **Experiencing Music II**



## **Experiencing Music II**

Course Instructional Time: 85 hours

### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

This course is designed for students in grades K-2 and introduces basic components of music: melody and rhythm. Aligning to the National Core Arts Standards, the course teaches the student to explore an individual voice by creating beats and rhythms. In addition, the student will use critical listening skills to analyze music while participating in interactive experiences. With audio, visual, and interactive technologies, this course provides a unique and advanced learning experience.

### 1. Singing, Moving, and Shaking!

- 1. Music Is Everywhere!
  - Recognize the difference between everyday sounds and sounds that create musical pieces or songs
- 2. I Can Use Different Voices!
  - Discriminate between the four ways humans use the voice: calling, singing, speaking, and whispering
- 3. Beat or Rhythm?
  - Create and model the differences between a steady beat and a rhythm pattern
- 4. Putting It All Together!
  - Arrange rhythm, sound, and voice patterns and phrases to create an original song
- 5. Making a Melody
  - Arrange rhythm patterns and sounds to create an original song
- 6. I'd Like to Write a Song!
  - Compose a short composition using the elements of rhythm and melody
- 7. How Many Are Coming for Dinner?
  - Identify and categorize singers into a solo, duet, or chorale
- 8. I Can Sing!

- Recognize and understand how to sing properly using breath control
- 9. Singing, Moving, and Shaking! Unit Review
  - Review all previous concepts and objectives for Unit 1
  - Take the unit test
- 10. Singing, Moving, and Shaking! Unit Test
  - Review all previous concepts and objectives for Unit 1
  - Take the unit test

### 2. A Musical Adventure!

- 1. Seeing the Big Picture
  - Identify a few of the visual elements of basic music notation
- 2. Staircases in the House
  - Identify and show synthesis of steps and skips on the music staff through listening and visual exercises
- 3. Treasure Hunt
  - Review and accurately select music symbols
  - Compare music to a road map
- 4. Sol and Mi Buddies!
  - Demonstrate solfège pitches sol and mi by singing and signing them
- 5. A Maze of Melodies
  - Demonstrate solfège hand signs and recognize the pitches they represent
- 6. Rhythm
  - Design rhythms using pictorial symbols and direction placement
  - Demonstrate knowledge of short and long rhythms through illustration
- 7. Destination Island
  - Create a musical composition putting together all of the concepts learned so far
- 8. A Musical Adventure! Unit Review
  - Review all previous concepts and objectives for Unit 2.
  - Take the unit test
- 9. A Musical Adventure! Unit Test
  - Complete Unit 2 Test

### 3. High, Low, Loud, Soft!

- 1. How Low Can You Go?
  - Distinguish low sounds played by specific instruments of the orchestra through critical listening
- 2. Up, Up, and Away!
  - Distinguish aurally and describe high sounds played by instruments of the orchestra
- 3. Putting Them Together
  - Compare and contrast high and low sounds and select and categorize sounds into those two categories
- 4. Shh . . . Did You Hear That?
  - Examine how instruments make soft sounds
  - Relate soft sounds to high and low sounds as found in the orchestra
- 5. Quiet Down, It's Loud in Here!

- Identify how instruments make loud sounds
- 6. Which One Is It: Soft or Loud?
  - Diagram soft and loud songs using a graphic organizer
- 7. What's that Sound?
  - Demonstrate an understanding of instrument timbre
- 8. High, Low, Loud, Soft! Unit Review
  - Review all previous concepts and objectives for Unit 3
  - Take the unit test
- 9. High, Low, Loud, Soft! Unit Test
  - Assess unit skills and concepts

#### 4. Sound Familiar?

- 1. You and Me in the USA: Music and Culture
  - Sing various folk songs from the United States
  - Identify steady beat and various rhythms in the songs
  - Examine and explore the culture of the United States by connecting American culture through literacy and music
- 2. China: Rhythms and Rhymes
  - Examine and explore the instruments of China and Chinese culture through literacy and music
  - Compare the differences between two songs from contrasting cultures
- 3. African Music and Culture
  - Use body percussion to perform rhythms in an African song
  - Recognize the difference between loud and soft sounds in an African folk song
  - Examine and explore the culture of Africa through literacy and music
- 4. We're Not That Different After All!
  - Summarize this unit by comparing and contrasting the three different cultures and songs from United States, China, and Africa
  - Synthesize previous music concepts from other units into this lesson including the following: high/low, loud/soft, short/long, and use of dynamic terms piano and forte
  - Critically listen and analyze three songs from around the world
- 5. Sound Familiar? Unit Review
  - Review all previous concepts and objectives for Unit 4
  - Take the unit test
- 6. Sound Familiar? Unit Test
  - Complete the Unit Test for Unit 4

Pennwood Cyber Charter School Application

# **Experiencing Music III**



### **Experiencing Music III**

Course Instructional Time: 85 hours

# **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

This course is designed for students in grades K-2 and deepens the student's understanding of the roles musicians play in today's society. Aligning to the National Core Arts Standards, this course uses dynamic media to help the student discover a musical identity while expanding knowledge of the foundations of music. The student will apply foundational knowledge to different musical styles and literature. With audio, visual, and interactive technologies, this course provides a unique and advanced learning experience.

#### 1. Creative Foundations

- 1. Making Music
  - Differentiate between music and sounds
  - Produce a steady beat
- 2. Get the Rhythm
  - Differentiate beat and rhythm
  - Play and sing a variety of rhythmic patterns
- 3. Quarter Notes
  - Identify notation for quarter notes
  - Identify quarter notes in audio
  - Play and sing quarter notes with a steady beat
  - Write notation for quarter notes
- Two Eighths for a Quarter
  - Identify notation for eighth notes
  - Describe eighth notes in relation to quarter notes
  - Play and sing a variety of rhythmic patterns
  - Identify notation for a variety of rhythmic patterns
- 5. Two Quarters Make a Half
  - Identify notation for half notes
  - Describe half notes in relation to quarter notes
  - Play and sing a variety of rhythmic patterns
  - Write notation for a rhythmic pattern
- 6. Two Halves Make a...
  - Identify notation for whole notes

- Describe whole notes in relation to half, quarter, and eighth notes
- Describe four-four time
- Play and sing a variety of rhythmic patterns

# 7. A Short Stop or a Long Nap?

- Identify notation for rests
- Describe rests in relation to lengths of time
- Write notation for a variety of rhythmic patterns
- Play a variety of rhythmic patterns

#### 8. A Tree of Music

- Differentiate whole notes, half notes, quarter notes, and eighth notes on a note tree
- Differentiate whole rests, half rests, and quarter rests on a note tree

## 9. Pitch Perfect

- Define pitch and melody
- Identify steps and skips in a variety of melodies
- Play a melody with steps and skips

#### 10. A Musical Roller Coaster

- Identify ascending and descending motion in a variety of melodies
- Analyze melodic contour in a variety of melodies
- Sing and play a variety of melodic contours

## 11. Making Choices: Fast or Slow

- Describe tempo in musical composition
- Interpret creative choices in compositions
- Play a variety of rhythms with different tempos

### 12. Making Choices: Loud or Soft

- Describe dynamics in musical compositions
- Interpret creative choices in compositions
- Compose a song about weather

#### 13. Creative Foundations Unit Review

- Review all previous concepts and objectives for Unit 1
- 14. Creative Foundations Unit Test

#### 2. A Musician's Role

- 1. Starting the Scale
  - Demonstrate knowledge of solfège through hand signals
  - Correctly locate pitches on a scale
  - Play and sing melodies using do, re, and mi

## 2. Sol Fa Away

- Demonstrate knowledge of solfège through hand signals
- Correctly locate pitches on a scale
- Sing melodies using do, re, mi, fa, and sol

## 3. Back to the Start

- Demonstrate knowledge of solfège through hand signals
- Correctly locate pitches on a scale
- Play a melody using the full C-major scale

## 4. Creating Music

- Describe the role of a composer
- Describe how a composer uses elements of music to communicate with others
- Compose a melody for another person to perform

# 5. Taking the Stage

- Describe the role of a performer
- Analyze dynamic and tempo markings
- Interpret and perform a melody according to dynamic and tempo markings

## 6. Responding to Music

- Describe the role of the listener
- Compare and contrast the roles of composer, performer, and listener
- Evaluate responses to music performances

## 7. Exploring Context

- Describe how context affects the way a composer, performer, and listener interpret music
- Compose a piece of music to accompany a film

## 8. Responding Through Composition

- Analyze the context of a musical composition
- Perform a musical composition
- Compose a new piece in response to an existing one

## 9. Composing and Performing

- Describe elements of music
- Compose and perform original music
- Evaluate and revise a musical composition

## 10. A Musician's Role Unit Review

- Review all concepts and objectives for Unit 2
- 11. The Musician's Role Unit Test

## 3. The Art of Music

- 1. Making Music from Images
  - Describe how art influences music.
  - Evaluate how a composition evokes visual art.

#### 2. Music and Storytelling

- Compare and contrast telling stories through words and telling stories through music.
- Analyze a composition as it relates to and reflects a story.
- Write a musical composition based on a story

#### 3. Dance to the Music

- Describe the connection between dance and music
- Compose music based on a type of dance

#### 4. If It Isn't Baroque...

- Describe characteristics of Baroque art and music.
- Compose and perform a melody with a set ostinato.

## 5. A Love of Nature

- Describe characteristics of Romantic art, music, and poetry
- Compose a poem to accompany a selection of Romantic music

#### 6. Impressed with Impressionism

Describe characteristics of Impressionist art and music

- Compose and perform music inspired by Impressionist art
- 7. Express Yourself
  - Describe characteristics of Expressionism
  - Create Expressionist art
  - Perform Expressionist music with a graphic score
- 8. Breaking the Mold
  - Describe characteristics of Dadaism
  - Create a collage expressing a reaction to Dadaist music
- 9. The Sounds of the Future
  - Describe characteristics of Futurism
  - Create a Futurist composition
- 10. Keeping Things Simple
  - Describe characteristics of Minimalism
  - Perform a Minimalist composition
- 11. Music in Response to Art
  - Analyze a piece of visual art
  - Create a musical composition inspired by visual art
  - Evaluate personal work and artistic process
- 12. Creating Art in Response to Music
  - Analyze a song's use of elements of music
  - Create visual art inspired by a song
  - Evaluate personal work and artistic process
- 13. The Art of Music Unit Review
  - Review all concepts and objectives for Unit 3
- 14. The Art of Music Unit Test

## 4. Musical Cultures

- 1. Discovering Musical Culture
  - Identify components of musical culture
  - Describe the importance of studying music to preserve culture
- Sharing Music the Old-Fashioned Way
  - Describe characteristics of folk music
  - Analyze a folk composition
  - Play a folk song
- 3. Cool Jazz
  - Describe characteristics of jazz
  - Analyze a jazz composition
  - Improvise rhythms around a jazz beat
- 4. Free Swinging Beats
  - Describe characteristics of swing music
  - Respond to swing music through dancing
  - Play swing rhythms
- 5. Down with the Blues
  - Describe characteristics of blues
  - Analyze a blues composition

- Compose and perform a blues song to a beat
- Perform a blues rhythm
- 6. Country Crooning
  - Describe characteristics of country music
  - Analyze a country music composition
  - Improvise a country song
- 7. Rocking Out
  - Describe characteristics of rock music
  - Identify lead and rhythm guitar in rock music
  - Improvise with the voice over rock and roll rhythms
- 8. Get the Beat with Hip-Hop
  - Describe characteristics of hip-hop music
  - Analyze a hip-hop composition
  - Compose and perform a hip-hop song
- 9. Experimenting With Electronic Music
  - Describe characteristics of electronic music
  - Create an electronic music composition
- 10. Your Musical Autobiography
  - Create a musical autobiography analyzing musical identity
- 11. Musical Cultures Unit Review
  - Review all concepts and objectives for Unit 4
- 12. Musical Cultures Unit Test

Pennwood Cyber Charter School Application

## **Exploring Music I**

Appendix A.2.f. Fine Arts Course Guides



#### **Exploring Music I**

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

Designed for students in grades 6–8, this course teaches fundamental musicianship skills approached from a Western-Classical style, while aligning to National Core Arts Standards. The course challenges the student to improve listening, notation, analysis, performance, and improvisation skills. With audio, visual, and interactive technologies, the course provides a unique and advanced learning experience for the student. Audio, visual, and interactive technologies, this course provides a unique and advanced learning experience.

#### 1. Feel the Pulse

- 1. What Is Music?
  - Identify and define music and its components
  - Examine the various tools you will use to read, write, perform, and analyze music
  - Analyze musical elements in selected examples
- 2. Rhythmic Groove
  - Identify and define durational symbols of sound (notes)
  - Perform rhythmic patterns containing a variety of notes
  - Identify tools that assist musicians in performing music
- 3. Dividing Beats
  - Identify division of note duration
  - Perform rhythmic patterns containing eighth and sixteenth notes
- 4. Silence, Please!
  - Identify and define durational symbols of silence (rests)
  - Perform rhythmic patterns containing a variety of rests
  - Consider why a composer would use silence in a piece of music
- 5. Dots and Ties
  - Identify dots and ties and explain how they modify the duration of notes and rests
  - Describe syncopation and perform syncopated rhythms accurately
  - Compose, perform, and dictate rhythmic patterns containing dots and ties

#### 6. What Time Is It?

- Organize durational symbols into various time signatures.
- Distinguish between duple, triple, and quadruple meter.
- Analyze a single song in different time signatures.

#### 7. Turn Up the Volume!

- Identify and define terms and symbols relating to volume (dynamics) in music
- Compare and contrast the way composers use dynamics to create a mood or atmosphere
- Create a dynamic scheme for a familiar melody

#### 8. Speed It Up a Little!

- Identify and define terms of tempo
- Aurally distinguish between various tempi

#### 9. Feel the Pulse Review

Review all previous concepts and objectives for Unit 1

#### 10. Feel the Pulse Unit Test

- Identify and describe key words and concepts presented in Unit 1
- Evaluate students' ability to apply skills and concepts presented in Unit 1

#### 2. Building Blocks

#### 1. Compositional Tools

- Identify and describe some of the tools composers use to express ideas
- Consider various career paths a composer might choose
- Compare the emotional effect of melodies in the course repertoire

#### 2. Notating Pitch

- Define pitch
- Describe the correlation between pitch and the piano keyboard
- Identify treble clef

#### 3. About the Bass

- Describe the correlation between pitch and the piano keyboard
- Identify bass clef
- Identify the grandstaff

#### 4. Stepping Up

- Identify and define accidentals, enharmonics, and steps
- Perform accidentals in compositions

#### 5. Major Scales

- Identify the structure of a major scale using whole steps and half steps
- Compose a major scale using whole steps and half steps
- Differentiate both aurally and visually between half steps and whole steps

#### 6. Singing It

- Identify and define solfège and its usage in writing music
- Apply solfège syllables to major scales

#### Minor Scales

- Identify the structure of minor scales in terms of whole steps and half steps
- Compose minor scales using whole steps and half steps
- Compare the musical character of melodies in different modes

#### 8. What Is the Key?

- Identify major and minor key signatures
- Interpret key signatures in course repertoire correctly
- Analyze relationships between parallel and relative keys

#### 9. Making Melodies

- Identify the components of a pleasing melody
- Identify and define phrase and cadence
- Analyze melodies in the course repertoire

#### 10. Do It Yourself

- Understand and analyze the necessary components to construct a melody
- Compose a piece of music emphasizing melody

#### 11. Texture

- Identify and define common types of musical texture
- Analyze various textures found in the course repertoire

#### 12. Building Blocks Review

Review all previous concepts and objectives for Unit 2

#### 13. Building Blocks Unit Test

Take the unit test

#### 3. What Is an Orchestra?

#### 1. What Is an Orchestra?

- Describe the orchestra
- Identify instruments and instrument families found in an orchestra
- Describe the role of a conductor
- Draw a seating chart for a modern orchestra

#### 2. Strings

- Identify instruments that make up the string family
- Identify and describe sound production in string instruments
- Compare Western classical instruments to string instruments used in other cultures
- Aurally differentiate between high strings (violin) and low strings (cello or double bass)

#### 3. Woodwinds

- Identify the instruments that make up the woodwind family
- Organize woodwind instruments according to sound production
- Critique the use of woodwind instruments in a composition

#### 4. The Brass Family

- Identify instruments that make up the brass family and describe their sound production
- Aurally differentiate between high brass (trumpet) and low brass (trombone or tuba)
- Describe historical functions of brass instruments
- Compare the sound of a natural horn to that of a modern horn

#### 5. The Percussion Family

- Identify instruments in the percussion family and describe their method of sound production
- Differentiate between pitched and nonpitched percussion
- Compare Western classical instruments to percussion instruments used in other cultures

#### 6. Keyboard Instruments

- Identify instruments that make up the keyboard family and describe their history
- Compare the differences in sound production in various keyboard instruments (organ, harpsichord, piano)

Support your opinion on having a piano play music originally written for harpsichord

#### 7. Electronic Instruments

- Identify the history of electronic instruments
- Describe programming and how it is used in electronic instruments
- Identify the transformation of common devices into electronic instruments
- Discuss how today's computer technology could be applied to music composition

#### 8. What Is an Orchestra? Review

Review all previous concepts and objectives for Unit 3.

#### 9. What Is an Orchestra? Unit Test

- Identify and describe the primary instruments and families within the orchestra
- Summarize the history of the orchestra and the families of instruments

#### 4. Time Travel

#### 1. Introduction to Music History

- Identify and describe the role of a musicologist
- Summarize the stylistic periods of Western classical music

#### 2. Time to Sing

- Identify important composers and styles of the Renaissance
- Identify the parts of the Ordinary of the Mass
- Differentiate between sacred and secular music
- Compose a melody on a given text that demonstrates word painting

#### 3. If It Ain't Baroque

- Identify and describe important elements of Baroque style
- Identify and define concerto grosso
- Draw a chart outlining the structure of a fugue

#### 4. Bach Looms Large

- Identify the highlights of Bach's life and describe his contributions to music
- Compare and contrast Baroque opera and cantata

#### 5. The Classical Period

- Identify important composers and styles of the Classical period
- Draw a diagram outlining sonata-allegro form

#### 6. The Mozart Myth

- Identify highlights in Mozart's life and describe his musical contributions
- Compare and contrast characteristics of Baroque and Classical style

#### 7. Beethoven

- Identify highlights of Beethoven's life and describe his contributions to music
- Give your appraisal of critics' remarks about Beethoven's Fifth Symphony

#### 8. Isn't It Romantic?

- Identify important composers and styles of the Romantic era
- Analyze a Romantic lied for word painting

#### 9. Entering the Twentieth Century

- Identify important composers and styles from the turn of the twentieth century
- Identify and define symphonic poem
- Compose a melody using a whole-tone scale

#### 10. The Modern Period

- Identify important composers and styles from the early twentieth century
- Discuss your thoughts on the future trends in music
- 11. Stylistic Composition Portfolio
  - Compose a piece of music emphasizing melody
- 12. Time Travel Review
  - Review all previous concepts and objectives for Unit 4
- 13. Time Travel Unit Test
  - Take the Unit 4 test

Pennwood Cyber Charter School Application

## **Exploring Music II**

Appendix A.2.f. Fine Arts Course Guides



#### **Exploring Music II**

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

Designed for students in grades 6–8, this course reviews and expands fundamental musicianship skills approached from a Western-Classical style, while aligning to the National Core Arts Standards. The student will review and expand basic skills and concepts of rhythm and notation that were introduced in Exploring Music I. The student will use classic repertoire to analyze compositional style and improve listening, notation, analysis, performance, and improvisation skills. With audio, visual, and interactive technologies, the course provides a unique and advanced learning experience. Exploring Music I is a prerequisite for this course.

#### 1. Cool Pulsations

- Get Started
  - Examine ways in which music impacts your life
  - Demonstrate an understanding of the elements that make up music
  - Examine the various tools used to read, write, improvise, and perform music
- 2. Rhythm—It's Everywhere!
  - Identify a variety of rhythmic patterns using whole notes, half notes, quarter notes, eighth notes, sixteenth notes, dotted notes, and corresponding rests
  - Compose a variety of rhythmic patterns using whole notes, half notes, quarter notes, eighth notes, sixteenth notes, dotted notes, triplets, and corresponding rests
  - Play and sing a variety of rhythmic patterns using whole notes, half notes, quarter notes, eighth notes, sixteenth notes, dotted notes, triplets, and corresponding rests
- 3. Dots and Ties
  - Identify the use of ties and dotted rhythms in select repertoire
  - Read, write, and perform music using ties, dotted rhythms, and syncopation
- 4. Meter—Make It Simple!
  - Distinguish between simple and compound meter
  - Compose and perform a variety of rhythmic patterns in a variety of meters

#### 5. Say It This Way . . .

- Identify a variety of tempo in music
- Demonstrate an understanding of tempo vocabulary
- Read and perform tempo variations in music

#### 6. Speed It Up, Slow It Down

- Identify ways in which tempo can change in a piece of music or within a given phrase of music
- Identify ways in which dynamics can change in a piece of music or within a given phrase of music
- Demonstrate tempo variations in performance
- Demonstrate dynamic variations in performance

#### 7. Cool Pulsations Unit Review

- Review all previous concepts and objectives for Unit 1
- 8. Cool Pulsations Unit Test

#### 2. Absolute-ly

#### 1. Grand Staff

- Review pitch fundamentals, including clefs and note names on the grand staff
- Demonstrate reading pitches on the grand staff

#### 2. Step Ladder

- Review pitch fundamentals, including clefs and note names on the grand staff
- Define half and whole step as it relates to piano keys
- Aurally and visually determine the differences between whole and half steps

#### 3. Major in This!

- Identify the major scale pattern of whole steps and half steps
- Construct major scales in various keys
- Review the solfège system and syllables
- Apply solfège syllables to the major scale

#### 4. Minor Steps

- Review the construction of a major scale
- Review the minor scale pattern of half steps and whole steps
- Differentiate between major and minor scales
- Differentiate between the three forms of the minor scale
- Describe a parallel minor scale and how it relates to the major scale

#### Find the Key

- Differentiate and identify major and minor key signatures
- Analyze key signatures in repertoire

#### 6. Intervals

- Identify intervals aurally and visually
- Construct intervals above a given note
- Analyze intervals in the melodies of course repertoire

#### 7. Triads

- Construct triads on each scale degree
- Explain the importance of the tonic and dominant triads
- Analyze selected triads in the course repertoire

#### 8. Composition Portfolio

Compose an original melody

#### 9. Absolute-ly Unit Review

- Evaluate knowledge of musical concepts covered in this unit
- 10. Absolute-ly Unit Test

#### 3. Stylistic Imprints

#### 1. A Historical Journey

- Explain the importance of studying music from a historical perspective
- Examine how history has influenced the evolution of music over time
- Understand the general characteristics and dates of Western classical style periods

#### 2. Life and Times in the Middle Ages

- Identify important musical styles and characteristics of music from the Medieval style period
- Explain sociocultural practices that influenced the music in the Middle Ages

#### 3. The Rebirth

- Analyze music from the Renaissance style period
- Identify important musical styles and characteristics of music from the Renaissance style period
- Identify important composers from the Renaissance style period

#### 4. Baroque Brilliance

- Recognize sociocultural factors that influenced music from the Baroque style period
- Identify important musical styles and characteristics of music from the Baroque style period
- Identify important composers from the Baroque style period

#### 5. Copy Me!

- Identify fugal style and explain a fugue's main parts
- Recognize parts of a fugue aurally
- Learn important biographical information about Johann Sebastian Bach
- Identify the harpsichord as an important Baroque keyboard instrument

#### 6. It's Classic!

- Recognize sociocultural factors that influenced music from the Classical style period
- Describe the transitional elements from the Baroque style to Classical style
- Identify important musical styles and characteristics of music from the Classical style period

#### 7. The First Viennese School

- Identify important composers from the Classical style period
- Recognize the compositional styles of Franz Joseph Haydn, Wolfgang Amadeus Mozart, and Ludwig van Beethoven
- Analyze works composed in the Classical period by different composers

#### 8. Bold Expressions

- Recognize sociocultural factors that influenced music from the Romantic style period
- Describe the transitional elements from the Classical style to Romantic style
- Identify important characteristics of music from the Romantic style period
- Identify important composers from the Romantic style period

#### 9. Impress Me

- Identify important musical characteristics from the Impressionist style period
- Identify important composers who wrote in the Impressionist style period
- Compose a melody using the whole-tone scale

#### 10. A New Sound

- Identify characteristics of styles from the Modern period
- Identify important composers from the Modern period, including some American composers

- Describe elements of ragtime style and its use in social settings
- 11. Stylistic Imprints Unit Review
  - Review all previous concepts and objectives for Unit 3
- 12. Stylistic Imprints Unit Test
  - Identify and describe key words and concepts presented in Unit 3
  - Evaluate students' ability to apply skills and concepts presented in Unit 3 Evaluate students' ability to apply skills and concepts presented in Unit 3

#### 4. Architecturally Sound

- 1. Organize Your Music
  - Memorize intervals visually and aurally
- 2. Bach: Brandenburg Concerto No. 5
  - Examine Johann Sebastian Bach's Brandenburg Concerto No. 5 in D Major, BWV 1050, as a representative work of its historical period, identifying key elements that make it so
  - Identify the key rhythmic, melodic, and harmonic elements of Bach's Brandenburg Concerto No.
     5 and investigate their use as organizing principles
- 3. Mozart: The Magic Flute I
  - Examine Wolfgang Amadeus Mozart's The Magic Flute as a representative work of its historical period, identifying key elements that make it so
  - Identify the key, rhythmic, melodic, and harmonic elements of The Magic Flute and investigate their use as organizing principles
- 4. Mozart: The Magic Flute II
  - Examine Wolfgang Amadeus Mozart's The Magic Flute as a representative work of its historical period, identifying key elements that make it so
  - Identify the key rhythmic, melodic, and harmonic elements of The Magic Flute and investigate their use as organizing principles
- 5. Schubert: Piano Trio No. 1
  - Examine Franz Schubert's Piano Trio No. 1 in B-flat Major, op. 99, D. 898, as a representative work of its historical period, identifying key elements that make it so
  - Identify the key rhythmic, melodic, and harmonic elements of Schubert's Piano Trio No. 1 and investigate their use as organizing principles
- 6. Brahms: Piano Concerto No. 2
  - Examine Johannes Brahms's Piano Concerto No. 2 in B-flat Major, op. 83, as a representative work of its historical period, identifying key elements that make it so
  - Identify the key rhythmic, melodic, and harmonic elements of Brahms's Piano Concerto No. 2 and investigate their use as organizing principles
- 7. Composition and Analysis Portfolio
  - Compose an original piece of music
  - Provide an analysis of musical elements in original composition
- 8. Architecturally Sound Unit Review
  - Review all previous concepts and objectives for Unit 4
- 9. Architecturally Sound Unit Test

Pennwood Cyber Charter School Application

## **Exploring Music III**

Appendix A.2.f. Fine Arts Course Guides



#### **Exploring Music III**

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

Designed for students in grades 6–8, this course enhances the student's knowledge of musical cultures as he or she discovers a musical identity. Aligning to the National Core Arts Standards, this course provides the student with engaging opportunities to combine musical knowledge with an exploration of different art forms to create new personal works. The student will apply foundational knowledge of music to a variety of musical styles and cultures. With audio, visual, and interactive technologies, this course provides a unique and advanced learning experience. Exploring Music I and Exploring Music II are prerequisites for this course.

#### 1. Creative Foundations

- 1. Back to the Top
  - Identify what elements make up music
  - Describe different types of music and what makes them similar
  - Identify the role musicians play in society today and throughout history
- 2. Writing a Groovy Beat
  - Articulate and produce a steady beat
  - Differentiate between whole notes, half notes, quarter notes, eighth notes, and sixteenth notes in simple rhythms
  - Sing a variety of rhythmic patterns
  - Identify and compare time signatures
- 3. Silence Is Golden
  - Identify rhythmic notation for rests
  - Play and sing different rhythmic patterns that incorporate a variety of rests
- 4. Staff Meeting
  - Identify notes across multiple staves
  - Compose a variety of melodic patterns
- 5. One Step at a Time

- Identify the difference between whole and half steps
- Apply pertinent vocabulary in the appropriate context
- Design melodies aligned with guidelines

#### 6. Major Keys

- Describe the qualities of major and minor scales
- Construct a scale based on its key signature
- Identify key signatures

#### 7. Minor Keys

- Describe the qualities of minor scales
- Construct minor scales based on their key signature
- Transform a scale into its parallel major or minor

#### 8. Making Melodies

- Identify tools composers use to create melodies
- Analyze the components of a compelling melody

#### Major League

- Create major chords using provided criteria
- Identify the three notes necessary to create a major chord

#### 10. Minor Changes

- Create minor chords using provided criteria
- Identify the three notes necessary to create a minor chord
- Compare the tonal qualities of minor and major chords

#### 11. In Harmony

- Compose diatonic chord progressions using major and minor chords
- Analyze the relationship between scales and chords

#### 12. Musical Communication

- Analyze a composer's artistic intentions through a composition
- Demonstrate advanced composition techniques
- Create an original work including melody and harmony

#### 13. Unit 1 Review

14. Unit 1 Test

#### 2. A Musician's Role

#### 1. Different Roles

- Describe the relationship among the composer, performer, and listener
- Identify and describe the specific role of the composer, performer, and listener

#### 2. The Composer

- Describe the relationship between the composer and the listener
- State questions a composer might consider while composing music
- Compose a piece of music based on a select criteria

#### 3. Understanding the Performer

- Identify and describe the role of the performer in the music community
- Compare performances given by different musicians and identify which element each musician altered to make each performance

#### The Listener

Identify characteristics of an active listener

- Conclude which listening habits are characteristic of active listening
- Use active listening skills to identify distinct characteristics and features of a piece of music

#### 5. Composing Your World

- Identify possible sources of inspiration
- Analyze and appraise objects, people, and events in your own life as possible inspirations for music compositions

#### 6. Enhanced Listening

- Evaluate a musical composition with select criteria
- Analyze program music for musical elements used by a composer to portray the stated story or mood of the music

#### 7. A Musical Society

- Assess and evaluate the value of music to multimedia projects
- Attribute descriptions to musical passages based on given criteria

#### 8. Spontaneous Compositions

- Compare and describe the differences and similarities between the music material from a nonimprovised passage and an improvised passage in a song
- Improvise melodies based on a select criteria

#### 9. Unit 2 Review

10. Unit 2 Test

#### 3. The Art of Music

- 1. You Be the Judge
  - Understand how to compare and contrast musical works across time periods
  - Evaluate a musical performance

#### 2. Everyone's a Critic

- Create a personal set of criteria for evaluating music
- Evaluate musical performances based on a personal set objective and subjective criteria

#### 3. Apples and Oranges

- Describe similarities or differences between works across genres
- Understand how genres and idioms are defined by characteristics

#### 4. Tradition vs. Innovation

- Identify factors that drive innovation in music
- Compose a piece of music based on given criteria
- Describe how technology shapes music

#### 5. Movers and Shakers

- Predict future changes in the practice of music
- Identify contributions made by individual composers
- Perform a period piece of music

#### 6. Impressionism

- Compare multiple forms of art from the same period
- Describe characteristic traits within a given period

#### 7. Modernism

- Match composers with music characteristic of their era
- Describe how music relates to world events
- 8. Popular Music

- Develop criteria for evaluating popular music
- Identify works that are characteristic of modern popular music

#### 9. Current Artistic Communities

- Describe how different artistic communities influence one another
- Identify social contributions of artistic communities
- Improvise melodies within given criteria

#### 10. Technology in Music

- Compare and contrast current and older technology
- Identify how technology influences the arts

#### 11. Artistic Influence

- Evaluate artistic works from different fields
- Compare musical works from different eras

#### 12. Derivative Works

- Evaluate works from a variety of artistic disciplines
- Create a derivative work
- Identify ways in which the arts are connected

#### 13. Unit Review

14. Unit Test

#### 4. Musical Cultures

- 1. Purpose of Music
  - Understand and evaluate personal uses of music
  - Develop criteria for assessing purposes of music

#### 2. Music and Culture

- Describe how the purpose of music differs across cultures
- Identify how cultural traditions influence composers

#### 3. Music and Language

- Identify the origin of a piece of music based on its characteristics
- Describe how culture influences creative works

#### 4. Folk Forms

- Describe similarities of instruments from different cultures
- Create improvised melodies over a given chord progression
- Identify cultures associated with pieces of music

#### 5. A Shared Heritage

Analyze instrument designs across cultures

#### 6. Cultures Today

- Describe the relationship between art and society
- Understand characteristics of different genres of music

#### 7. Your Own Drum

- Develop criteria for assessing different musical works
- Analyze what you like or dislike about a given musical work

#### 8. The Future of Music

- Predict the course of future music
- Relate current events to future outcomes
- Identify the role technology plays in musical advancement

- 9. Musical Cultures Review
  - Review the learning objectives for the unit
- 10. Musical Cultures Test
  - Assess understanding of the objectives of the Unit.

Pennwood Cyber Charter School Application

## **Living Music I**

Appendix A.2.f. Fine Arts Course Guides



#### **Living Music I**

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

Designed for students in grades 9–12, this course teaches fundamental musicianship skills from a Western-Classical approach, while aligning to National Core Arts Standards. The course challenges the student to improve listening, notation, analysis, performance, and improvisation skills. With audio, visual, and interactive technologies, the course provides a unique and advanced learning experience for the student.

#### 1. Keeping Time: Understanding Rhythm

- 1. Welcome to Music
  - Identify the components that make up music
  - Examine the various tools with which you will be learning how to read, write, improvise, perform, and analyze music
- 2. Measuring Time: Beats and Duration
  - Recognize and produce a steady beat
  - Identify and perform whole notes, half notes, and quarter notes
- 3. Measuring Time: New Notes
  - Identify and perform eighth notes and sixteenth notes.
- 4. Measuring Silence: Rests
  - Recognize and identify rest symbols for whole notes, half notes, quarter notes, eighth notes, and sixteenth notes
- Grouping Beats
  - Demonstrate appropriate usage of time signatures (2/4, 3/4, 4/4, 6/8, 3/8, 2/2)
  - Illustrate ability to use notes and rests to create rhythmic compositions in various meters
- 6. Conducting Patterns and Tempo
  - Recognize the standard conducting patterns for 2/4, 3/4, 4/4, 2/2, and 6/8
  - Define standard tempo terms and apply them to music
- 7. Breaking the Pattern
  - Identify some of the ways composers use rhythm as an expressive tool

Evaluate ways in which tempo can be altered within a piece

#### 8. Dynamics

- Define the primary dynamic markings and their abbreviations
- Identify some of the ways in which composers use dynamics to create musical interest
- Evaluate some of the differences in dynamic usage from one composer to another
- 9. Keeping Time: Understanding Rhythm Unit Review
  - Review all previous concepts and objectives for Unit 1
- 10. Keeping Time: Understanding Rhythm Unit Test

There are no objectives for this lesson.

#### 2. Keeping Score: Understanding Music Notation

- 1. Introduction to Musical Notation
  - Identify some of the tools that composers use to sculpt music
  - Apply broad topics of articulation, harmony, intervals, and pitch to vocal performance
  - Analyze the effects of these variables on musical outcome

#### 2. Pitch

- Demonstrate understanding of the concept of pitch
- Locate middle C and other pitches on the piano keyboard and on the staff in both treble and bass clef
- Read from a multi-line score

#### 3. Intervals

- Label and construct basic intervals
- Relate half steps and whole steps to the piano keyboard
- Differentiate between stepwise and leaping motion
- 4. Major Scales and Key Signatures
  - Construct major scales in various keys
  - Use accidentals appropriately to create specific intervals

#### 5. Minor Scales and More

- Identify minor scales, whole tone scales, and chromatic scales
- Build minor scales in various keys
- Distinguish major from minor in written music and in aural examples
- Define parallel and relative keys and recognize examples

#### 6. Texture

 Construct a melody, demonstrating understanding of contour, functions of key scale degrees, stepwise and leaping motion, and other principles of good melody-writing

#### 7. Chords and Harmony

- Describe, construct, and identify major triads on first, fourth, and fifth scale degrees
- Describe and recognize arpeggios
- Distinguish consonant chords from dissonant chords by ear

#### 8. Phrases and Cadences

- Define and recognize, and write cadences
- Analyze common phrase structures

#### 9. Themes and Forms

Define theme, binary, and ternary form

- Assess longer movement structures in terms of repetition and contrast
- 10. Finishing Touches: Ornamentation and Articulation
  - Label, differentiate, and explain some of the markings that composers use to indicate ornaments and articulation
- 11. Composition Portfolio
  - Compose a 24-measure work that demonstrates understanding of phrasing, instrumentation, clefs, pitch, rhythm, cadences, texture, dynamics, articulation, and ornamentation
- 12. Understanding Music Notation Unit Review
  - Review all previous concepts and objectives for Unit 2
  - Take the unit test
- 13. Understanding Music Notation Unit Test
  - Evaluate student's knowledge and skill applying Unit 2 concepts

#### 3. It's All Relative: The Musical Family Tree

- 1. What Is an Orchestra?
  - Define the term orchestra
  - Identify the major instrument families and what defines each family
  - Summarize the role of the conductor
  - Define instrumentation and timbre
  - Reconstruct the standard orchestral seating chart by section
- 2. The String Family
  - Examine the qualities of string instruments
- 3. The Woodwind Family
  - Examine the qualities of woodwind instruments
- 4. The Brass Family
  - Examine the qualities of brass instruments
- 5. The Percussion Family
  - Examine the qualities and history of percussion instruments
  - Apply basic drumming techniques at home
  - Identify possible uses for home items as percussion instruments
  - Differentiate by sight and sound the major members of the percussion family and introduce auxiliary members of the family
- 6. Keyboard Instruments
  - Reconstruct the history of the keyboard instruments, from harpsichord and clavichord to organ to piano
  - Evaluate their relationship to string and percussion families
  - Differentiate by sight and sound the major keyboard instruments
- 7. Identification Portfolio
  - Apply previously learned notation-reading and ear-training skills to identify errors in a score and recording
- 8. Chamber Music
  - Define ensemble and chamber music
  - Summarize some of the major types of chamber music ensembles: string quartet, woodwind quintet, brass quintet, percussion ensemble, sonata, piano trio
- 9. The Musical Family Tree Unit Review

- Review all previous concepts and objectives for Unit 3
- 10. The Musical Family Tree Unit Test

There are no objectives for this lesson.

#### 4. The Big Picture: Music History and Styles

- 1. The Study of Music
  - Describe some nonperformance jobs in music
  - Explain how composers have made a living over the last 500 years
- 2. Pre-Baroque and Baroque Periods
  - Understand elements of Renaissance music
  - Recognize and apply elements of Baroque style to performance and improvisation
  - Identify characteristics of Baroque composers, forms, and styles
- 3. Behold, the Beauty of Bach
  - Identify the style of a fugue and its parts
  - Analyze Johann Sebastian Bach's Fugue in G Minor, BWV 578
- 4. The Classical Period
  - Identify major composers, styles, and historical influences in the Classical period
  - Distinguish by ear and score-examination works composed in the Classical period
- 5. Mozart's Marvelous Melodies
  - Understand Mozart's Concerto for Clarinet in A Major as a representative work of Classical style
- 6. Beethoven's Revolutionary Writing
  - Demonstrate an understanding of late-Classical style and theme-and-variation form
  - Demonstrate an understanding of Beethoven's compositional style in Symphony No. 5 in C
     Minor, op. 67
- 7. The Romantic Period
  - Demonstrate an understanding of Romantic composers and their musical styles and forms
  - Construct a Romantic-style programmatic composition
- 8. Chopin's Lacy Lyricism
  - Analyze Chopin's Nocturne No. 2 in E-flat Major, op. 9, no. 2 from historical, theoretical, and performance perspectives
  - Describe the historical context in which Chopin's Nocturne No. 2 in E-flat Major, op. 9, no. 2 was written
- 9. Twentieth and Twenty-First Century Music
  - Identify major composers, styles, trends, and historical influences in twentieth century and twenty-first century music
  - Distinguish works composed in this era by ear and score-examination
- 10. Debussy's Desires and Dreams
  - Analyze Debussy's Prelude to the Afternoon of a Faun from historical, theoretical, and performance perspectives
  - Describe the historical context in which Debussy's Prelude to the Afternoon of a Faun was written
- 11. Stylistic Composition Portfolio
  - Compose a 24-measure work for 2-4 instruments
  - Demonstrate and apply knowledge of instrumental ranges, clefs, meters, and key signatures

- Explain compositional decisions in a paragraph-long essay
- 12. The Big Picture: Music History and Styles Review
  - Review all previous concepts and objectives for Unit 4
- 13. The Big Picture: Music History and Styles Unit Test
  - Evaluate student's knowledge and skill at applying Unit 4 concepts

Pennwood Cyber Charter School Application

## **Living Music II**

Appendix A.2.f. Fine Arts Course Guides



#### **Living Music II**

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

Designed for students in grades 9–12, this course enhances the student's fundamental musicianship skills from a Western-Classical approach, while aligning to National Core Arts Standards. The student will review and deepen skills and concepts of rhythm and notation learned and practiced in Living Music I. Through the use of virtual tools and analysis of classic repertoire, the student will work to improve listening, notation, analysis, performance, and composition skills. With audio, visual, and interactive technologies, the course provides a unique and advanced learning experience for the student. Living Music I is a prerequisite for this course.

#### 1. Inspired to Move

- 1. Getting Started
  - Explain the components that make up music
  - Examine the various tools with which you will be learning how to read, write, improvise, perform, and analyze music
  - Examine the role that music plays in your life
- 2. Rhythm: The Building Blocks
  - Identify, perform, and compose with a variety of rhythmic patterns including whole, half, quarter, eighth, sixteenth, and dotted notes, triplets, and corresponding rests
- 3. Meter: It's Simple!
  - Define meter and demonstrate appropriate usage of time signatures, with emphasis on cut time and compound meters
  - Illustrate ability to use notes and rests to create rhythmic compositions in various meters
  - Use and follow appropriate conducting gestures
- 4. Working Together: Texture Portfolio
  - Demonstrate understanding of rhythmic relationships in polyphonic textures
  - Perform a rhythmic pattern as part of a polyphonic texture
  - Compose music using polyphonic textures
- 5. Meter: Not So Simple
  - Explain the organization of beat groupings in irregular meters

- Identify the use of mixed meter in recorded examples
- Sing and play irregular and mixed meters
- 6. Inspired to Move Unit Review
  - Review all previous concepts and objectives for Unit 1
- 7. Inspired to Move Unit Test
  - Evaluate student's knowledge and skill applying Unit 1 concepts

#### 2. Inspired to Relate

- 1. The Warm-Up Pitch
  - Recall and summarize key pitch concepts learned previously
  - Use previously acquired knowledge of pitch concepts in a variety of performance exercises
- 2. Intervals: Quantity and Quality
  - Identify intervals by number (or size) and quality, both visually and aurally
  - Aurally distinguish between intervals of different qualities (e.g., major sixth and minor sixth)
  - Read, write, and improvise using a wide variety of melodic and harmonic intervals
- 3. In Harmony: Triads
  - Visually identify chords by root, inversion, and quality
  - Aurally distinguish between chords of different qualities (e.g., major triad and minor triad)
  - Read, write, and improvise using major, minor, augmented, and diminished chords
- 4. Beyond Do, Re, Mi: All Sorts of Scales
  - Recognize and identify six scale types, both visually and aurally
  - Sing, play, improvise, and compose with six scale types
  - Explain the difference between the three types of minor scales
- 5. Unlocking Key Signatures
  - Recognize and apply all of the major and minor key signatures
  - Use the circle of fifths as a tool to identify major and minor key signatures
  - Explain the difference between relative and parallel keys
- 6. Not-By-Accidentals
  - Recognize and identify the use of accidentals within otherwise diatonic musical passages, both visually and aurally
  - Explain the difference between accidentals and sharps and flats within a key signature
- 7. Fully Functional
  - Identify diatonic chord functions, both visually and aurally
  - Correctly label and reproduce diatonic chord functions in musical notation
- 8. Conclusive Cadences
  - Identify the four major cadence types, visually and aurally
  - Explain the differences between the four cadence types and why they are used
- 9. Your Turn: Composition Portfolio
  - Compose a musical work that demonstrates understanding of the pitch concepts covered in this unit
- 10. Inspired to Relate Unit Review
  - Review all previous concepts and objectives for Unit 2
- 11. Inspired to Relate Unit Test
  - Evaluate student's knowledge and skill applying Unit 2 concepts

#### 3. Inspired to Create

- 1. More than Entertainment: Functions of Music
  - Examine the many practical and aesthetic purposes that music has across cultures
  - Assess your own experience with the 10 functions of music
- 2. The Middle Ages and the Renaissance
  - Recognize the sociopolitical factors that influenced musical practices in the Middle Ages and the Renaissance, and describe their impact on music and the other arts
  - Describe Renaissance style traits in recorded musical examples

#### 3. Baroque Grandeur I

- Summarize musical styles, compositional techniques, and performance practices from the Baroque period
- Recognize the sociopolitical factors that influenced musical practices in the Baroque period, and describe their impact on music and the other arts
- Examine a representative work from the Baroque period and identify the influence of the doctrine of affections

#### 4. Baroque Grandeur II

- Summarize musical styles, compositional techniques, and performance practices from the Baroque period
- Recognize the sociopolitical factors that influenced musical practices in the Baroque period, and describe their impact on music and the other arts
- Explain why selected great composers are representative of the style period

#### 5. The Enlightened Classical Spirit I

- Summarize musical styles, compositional techniques, and performance practices from the Classical period
- Relate Classical musical style to the values of Enlightenment philosophy
- Explain why Wolfgang Amadeus Mozart is representative of the style period

#### 6. The Enlightened Classical Spirit II: Composition

- Summarize musical styles, compositional techniques, and performance practices from the Classical period
- Compose a short aria with recitative

#### 7. The Romantic Period: Not Just for Romance I

- Summarize musical styles, compositional techniques, and performance practices from the Romantic period
- Recognize the sociopolitical factors that influenced musical practices in the Romantic period, and describe their impact on music and the other arts
- Identify Romantic style traits in the music of Felix Mendelssohn, Richard Wagner, and Johannes Brahms

#### 8. The Romantic Period: Not Just for Romance II

- Summarize musical styles, compositional techniques, and performance practices from the Romantic period
- Recognize the sociopolitical factors that influenced musical practices in the Romantic period, and describe their impact on music and the other arts
- Explain why Johannes Brahms and Pyotr Ilyich Tchaikovsky are representative of the style period

#### 9. No Holds Barred: Music of the Twentieth Century

- Recognize the sociopolitical factors that influenced musical practices in the twentieth century and describe their impact on music and the other arts
- Compare and contrast twentieth-century music with the style periods that preceded it
- Improvise a melody using the 12-tone method

#### 10. Rise of the Jazz Cats

- Describe the style traits of each of the major jazz types
- Discuss jazz music as a reflection of American cultural values in the twentieth century
- Explain why selected great composers are representative of the style period

#### 11. Inspired to Create Unit Review

Review all previous concepts and objectives for Unit 3

#### 12. Inspired to Create Unit Test

Evaluate knowledge and skill in applying unit concepts

#### 4. Inspired to Understand

#### 1. Introduction to Analysis

- Identify key concepts and themes that will guide the analysis of selected repertoire
- Explain the value of analytical practice as a facet of one's musicianship

#### 2. Bach: Brandenburg Concerto No. 5 I

 Examine Johann Sebastian Bach's Brandenburg Concerto No. 5 in D Major, BWV 1050, as a representative work of its historical period, identifying key elements that make it so

#### 3. Bach: Brandenburg Concerto No. 5 II

- Identify the key rhythmic elements of Johann Sebastian Bach's Brandenburg Concerto No. 5 in D
   Major, BWV 1050, and investigate their use as an organizing principle
- Identify the key melodic and harmonic elements of Bach's Brandenburg Concerto No. 5 and investigate their use as an organizing principle

#### 4. Bach: Brandenburg Concerto No. 5 III

- Identify and perform key motives and themes from Johann Sebastian Bach's Brandenburg Concerto No. 5 in D Major, BWV 1050, and investigate their use as an organizing principle
- Recognize the use of improvisation in Bach's Brandenburg Concerto No. 5 as a common practice of the Baroque period

#### 5. Bach: Brandenburg Concerto No. 5 IV

- Identify and perform key motives and musical ideas from Johann Sebastian Bach's Brandenburg
   Concerto No. 5 in D Major, BWV 1050, and investigate their use as an organizing principle
- Recognize the use of Baroque dance rhythms in a piece of concert music

#### 6. Mozart: The Magic Flute I

 Examine Wolfgang Amadeus Mozart's The Magic Flute as a representative work of its historical period, identifying key elements that make it so

#### 7. Mozart: The Magic Flute II

- Recognize the use of secondary dominant chords in Wolfgang Amadeus Mozart's The Magic Flute and compose music using a secondary dominant
- Interpret Mozart's setting of text to music to enhance its meaning
- Identify formal structures in select arias from The Magic Flute

#### 8. Mozart: The Magic Flute III

- Recognize the influence of Enlightenment philosophy in Wolfgang Amadeus Mozart's and Emanuel Schikaneder's work
- Compare musical elements of two pieces from The Magic Flute, and explain how they support the symbolism of the plot

#### 9. Schubert: Piano Trio No. 1 I

• Examine Franz Schubert's Piano Trio No. 1 in B-flat Major, op. 99, D. 898, as a representative work of its historical period, identifying key elements that make it so

- Identify the key themes of Schubert's Piano Trio No. 1 and investigate their use as an organizing principle
- Identify ways in which Schubert departed from the use of traditional sonata form in his Piano
   Trio No. 1

#### 10. Schubert: Piano Trio No. 1 II

- Recognize and perform examples of Franz Schubert's unconventional approach to tonality in Piano Trio No. 1 in B-flat Major, op. 99, D. 898
- Identify the specific musical elements that express an emotional effect in the second movement

#### 11. Schubert: Piano Trio No. 1 III

- Identify similarities between compositional techniques of composers from differing time periods
- Recognize and describe the "joking" elements that a composer may use in a scherzo

#### 12. Brahms: Piano Concerto No. 2 I

- Describe the musical and emotional characteristics of Johannes Brahms's Piano Concerto No. 2 in B-flat Major, op. 83
- Recognize thematic development in the first movement of Brahms's Piano Concerto No. 2

#### 13. Brahms: Piano Concerto No. 2 II

- Describe significant musical moments in Johannes Brahms's Piano Concerto No. 2 in B-flat Major, op. 83
- Recognize and compose with the characteristics of a scherzo

#### 14. Brahms: Piano Concerto No. 2 III

- Outline the formal structure of the fourth movement of Johannes Brahms's Piano Concerto No.
   2 in B-flat Major, op. 83, through listening and score study
- Implement a wide musical vocabulary to describe the characteristics of the piece
- Summarize the movement's place as part of a larger work and as a representative work of the Romantic period

#### 15. Inspired to Understand Unit Review

- Review all previous concepts and objectives for Unit 4
- 16. Inspired to Understand Unit Test

# APPENDIX A CURRICULUM

**A.2. COURSE GUIDES** 

g. ADVANCED PLACEMENT

This document is part of Appendix A: Curriculum.

It includes alignment documents for Advanced Placement classes for students.

- AP Biology
- AP Calculus
- AP Computer Science Principles
- AP English Language and Composition
- AP English Literature and Composition
- AP Environmental Science
- AP Human Geography
- AP Macroeconomics
- AP Microeconomics
- AP Psychology
- AP Statistics
- AP United States Government and Politics
- AP United States History

AP® is a trademark registered by the College Board, which is not affiliated with, and does not endorse this product.

## **AP Biology**



### **AP Biology Syllabus**

Curricular Requirements	Page(s)
CR1 The teacher and students have access to college-level resources including a recently published (within the last 10 years) college-level textbook and reference materials in print or electronic format.	4
<b>CR2</b> The course provides opportunities to develop student understanding of the required content outlined in each of the units described in the AP Course and Exam Description (CED).	10–32
CR3 The course provides opportunities to develop student understanding of the big ideas.	4–7
<b>CR4</b> The course provides opportunities for students to develop the skills related to Science Practice 1: Concept Explanation.	5–6, 12, 14, 16–17, 19, 21, 24, 26–28, 30, 32
<b>CR5</b> The course provides opportunities for students to develop the skills related to Science Practice 2: Visual Representations.	5-7, 12, 14, 16-17, 19, 21, 24, 26, 28, 30, 34
<b>CR6</b> The course provides opportunities for students to develop the skills related to Science Practice 3: Questions and Methods.	6-7, 10, 12, 14, 16-19, 21, 24, 26- 28, 30, 32, 34-35
<b>CR7</b> The course provides opportunities for students to develop the skills related to Science Practice 4: Representing and Describing Data.	6–7, 14, 17, 21, 32– 35
<b>CR8</b> The course provides opportunities for students to develop the skills related to Science Practice 5: Statistical Test and Data Analysis.	5–7, 14, 18–19, 24, 26, 28, 30, 32–35

Appendices page 1978 Pennwood Cyber Charter School

CR9 The course provides opportunities for students to develop the skills related to	5, 19–20,
Science Practice 6: Argumentation.	24, 26, 34
CR10 The course provides students with opportunities to apply their knowledge of AP	21, 24, 32-
Biology concepts to real-world questions or scenarios (including societal issues or technological innovations) to help them become scientifically literate citizens.	33
CR11 Students spend a minimum of 25% of instructional time engaged in a wide	5–8, 10,
range of hands-on, inquiry-based laboratory investigations to support the learning of	12, 14, 16-
required content and development of science practice skills throughout the course.	18, 20–21,
Students must conduct a minimum of two labs per big idea.	24, 26–28,
	32, 34
<b>CR12</b> The course provides opportunities for students to record and present evidence of	5-7, 10, 12,
their laboratory investigations.	14, 16–18,
	20–21, 24,
	26–27, 32,
	34–35

#### **Course Summary**

In this course, the student will gain a foundation in the Life Sciences by focusing on four major themes:

1) how evolution drives the diversity and unity of life; 2) how life uses free energy to maintain homeostasis; 3) how living systems store, retrieve, transmit, and respond to information; and 4) how biological systems interact with each other. These themes are supported by a broad range of biological subdisciplines including biochemistry, molecular biology, cell biology, genetics, physiology, and ecology. The student will use practical experimentation to develop inquiry and reasoning skills to explore these themes throughout the course. This course effectively prepares the student for success on the AP® Biology exam by promoting the deductive reasoning and experimental interpretation skills emphasized in the AP curriculum.

### **Course Units**

#### Semester A

- Unit 1: Course Overview
- Unit 2: Lab Safety, Equipment, and Scientific Methods
- Unit 3: The Chemistry of Life
- Unit 4: Biological Macromolecules Lab
- Unit 5: The Cell (Structure and Function; Cell Communication)
- Unit 6: Cell Structure Lab
- Unit 7: Cell Cycle Lab
- Unit 8: Mid-Semester Check
- Unit 9: Metabolism (Cellular Energetics)
- Unit 10: Cellular Respiration Lab (Cellular Energetics)
- Unit 11: Photosynthesis Lab (Cellular Energetics)
- Unit 12: Mitosis, Meiosis, and Inheritance (Heredity)
- Unit 13: Mendelian Genetics Lab (Heredity)
- Unit 14: Gene Expressions and Biotechnology (Gene Expressions and Regulation)
- Unit 15: Biotechnology Lab
- Unit 16: Semester Exam

#### Semester B

- Unit 1: Course Overview
- Unit 2: Mechanisms of Evolution (Natural Selection)
- Unit 3: Darwinian Evolution Lab
- Unit 4: Phylogeny Lab
- Unit 5: The Evolutionary History of Biological Diversity
- Unit 6: Unicellular Organisms Lab
- Unit 7: Multicellular Organisms Lab
- Unit 8: Mid-Semester Check
- Unit 9: Animal Form and Function
- Unit 10: Digestion, Circulation, and Respiration Lab
- Unit 11: Excretion and Nervous System Lab
- Unit 12: Ecology
- Unit 13: Ecology Lab
- Unit 14: Review and Full-Length Practice Exam
- Unit 15: Semester Project:
   Research Paper
- Unit 16: Semester Exam

## **Resource Requirements [CR1]**

Urry, L., Cain, M., Wasserman, S., Minorsky, P., and Jane Reece. *Campbell Biology*. 11th ed., Pearson Higher Education, 2016.

## Advanced Placement Biology Content [CR3] Big Ideas

Big idea 1: The process of evolution drives the diversity and unity of life.

### **Activity:**

Students will answer questions about the age of Earth and evolution. In addition, they will research and discuss the role of individuals, such as Charles Darwin, in evolutionary biology. [CR4, SP1]

#### Labs:

**Darwinian Evolution Lab** [CR5, CR8, CR9, CR11, CR12, SP2, SP4, SP5, SP6] Students will use models to demonstrate Hardy-Weinberg Equilibrium and natural selection in populations. They will use scientific theories to explain how small ecological changes can affect populations, communities, and ecosystems.

Phylogeny Lab [CR5, CR8, CR11, CR12, SP2, SP5, SP6]

Students will construct cladograms based on genetic evidence to demonstrate the evolutionary relationship among different organisms. They will analyze these data and explain how organisms diverged from one another.

**Big idea 2:** Biological systems utilize free energy and molecular building blocks to grow, to reproduce, and to maintain dynamic homeostasis.

### **Activity:**

Students will draw the electron transfer chain and chemiosmosis. They will label the drawings appropriately. [CR5, SP2]

#### Labs:

Cellular Respiration Lab [CR5, CR6, CR11, CR12, SP2, SP3, SP5, SP6]

Students will use respirometers and the gas laws to measure the rate of cellular respiration of germinating pea seeds. They will develop a scientific question, plan and collect data, and use scientific theories to explain their data.

Photosynthesis Lab [CR5, CR6, CR11, CR12, SP2, SP3, SP5, SP6]

Students will indirectly measure the net rate of photosynthesis in leaf disks by floating leaf disk assay. Students will develop a scientific question; plan, collect,

and analyze data; evaluate evidence to identify the impact of environmental factors on photosynthesis rates; and use scientific theories to explain their data.

Big idea 3: Living systems store, retrieve, transmit, and respond to information essential to life processes.

## **Activity:**

Students will create a stop-motion video or digital flipbook of the cell cycle. They will draw sketches of the events taking place in the  $G_1$ , S, and  $G_2$  phases of interphase; draw a set of diagrams representing the events taking place during mitosis and cytokinesis; and compare their drawings to ones in *Campbell Biology*. [CR5, SP2]

#### Labs:

Mendelian Genetics Lab [CR4, CR5, CR7, CR11, CR12, SP1, SP2, SP5, SP6]

Students will use Punnett squares to perform monohybrid and dihybrid crosses. They will predict and calculate the probabilities of the genotypes and phenotypes of mice offspring and parents. They will explain their predictions using accepted theories of genetic inheritance.

Biotechnology Lab [CR5, CR6, CR11, CR12, SP1, SP2, SP3, SP5]

Students will investigate biotechnology methods and bioengineer a corn plant. They will use a simulation of DNA analysis to identify twin frogs and a simulation of genetic engineering to engineer a new corn plant. Students will also create an action plan for bioengineering their corn plant and a diagram of their genetically engineered plant.

Big idea 4: Biological systems interact, and these systems and their interactions possess complex properties.

## **Activity:**

Students will find an ecosystem and identify types of organisms from each trophic level. They will create a flow chart for the ecosystem they chose. [CR5, SP2]

#### Labs:

Digestion, Circulation, and Respiration Lab [CR5, CR8, CR11, CR12, SP2, SP3, SP5, SP6]

Students will build a flowchart of the digestive system. They will analyze how the composition of blood changes through the circulatory system. They will measure their blood pressure and pulse, and determine how they are related to blood flow. Students will build a lung capacity estimator and use it to measure their lung capacity at rest and after exercise.

**Ecology Lab** [CR5, CR6, CR7, CR11, CR12, SP2, SP3, SP5]

Students will create a closed-model ecosystem and examine the presence of trophic structure and nutrient cycles in ecosystems. They will combine producers, consumers, and decomposers in a controlled aquatic ecosystem and determine how organisms are connected through trophic structure and nutrient cycling.

Students will also travel to field sites to document evidence of trophic structure and of the cycling of nutrients in nature.

## **Writing Assignments**

In each lesson, students respond to questions about their textbook readings and other resources both within the online learning platform and in a notebook, as needed. Students will also complete a research paper based on a scientific study in which they create a hypothesis, plan out experimental methods, collect data, analyze data, and draw conclusions.

## **Laboratory Simulations [CR11, CR12]**

The course is also structured around inquiry in the laboratory simulations and the use of the six science practices throughout the course.

Students will spend a minimum of 25 percent of this course participating in laboratory simulations/field studies. [CR11] Students will also maintain a portfolio throughout the course that documents all of their laboratory investigations. [CR12]

## **Science Practices**

#### **SP1: Concept Explanation**

Explain biological concepts, processes, and models presented in written format.

## **SP2: Visual Representations**

Analyze visual representations of biological concepts and processes.

# **SP3: Questions and Methods**

Determine scientific questions and methods.

## **SP4: Representing and Describing Data**

Represent and describe data.

# **SP5: Statistical Test and Data Analysis**

Perform statistical tests and mathematical calculations to analyze and interpret data.

## **SP6: Argumentation**

Develop and justify scientific arguments using evidence.

#### Assessments

Throughout the course, a variety of formative and summative assessments are used to assess student learning and prepare students for the expectations of the AP Biology exam. Students are provided with ample opportunity for skill practice, engagement in meaningful discourse with their peers, and application of their understanding via tasks that are representative of real-world scenarios. Summative assessment types lend themselves to a deeper level of rigor and include portfolios and discussions. Formative assessments are designed to be auto-graded to give students and teachers instant feedback for targeted instruction.

Most lessons contain a quick check assessment that covers the objectives in the lesson, and most units have at least one cumulative quiz that also assesses lesson objectives. Each instructional unit culminates in an online practice to help students review unit concepts and skills, followed by a unit test that consists of multiple choice and short answer and/or essay questions. To aid students in retaining content throughout the course of a semester, a mid-semester check unit appears in the middle of each semester, featuring a low-risk practice assessment covering the

objectives learned up to that point during the semester.

A graded full-length practice exam in the style of the AP Biology exam is given at the end of Semester B. Each semester ends with a semester exam.

Most units feature a discussion or portfolio that promotes critical thinking by expanding on topics students have learned. Each semester ends with a semester project and a semester exam. Graded assessments and participation all count toward the student's final grade.

### **Course Outline**

#### Semester A

## Unit 1: Course Overview [CR1, CR2]

In this unit, students will do the following:

- Acquaint themselves with the goals and expectations of the course.
- Ensure they have the required materials for the course. [CR1]
- Learn about the types of activities that will appear in the course.

# Unit 2: Lab Safety, Equipment, and Scientific Methods [CR2, CR6, CR11, CR12, SP3, SP4] In this unit, students will do the following:

- Understand and perform safe laboratory practices.
- Identify common laboratory equipment (e.g. graduated cylinder, beaker, flask, pipette, micropipette, Petri dish).
- State the four steps of a typical scientific method (observation, hypothesizing, experimentation, conclusion) and describe how they are employed.
- Define the independent and dependent variable in a given experiment and analyze what controls are needed to increase the validity of the experiment.
- Plan and carry out their own investigation using scientific methods.
- Record work in the Lab Safety, Equipment, and Scientific Methods Lab Report to

be submitted and graded by the teacher. Lab report

## sections include the following:

- Make an Observation
- Ask a Question
- o Formulate a Hypothesis
- Design and Conduct an Experiment
- Analyze Results
- Make a Conclusion

## Sample activities in this unit:

- Students will perform a household experiment that will allow them to go through all steps of the scientific method (e.g., comparing absorbing ability among different paper towel brands). [CR6, CR11, CR12, SP3, SP4]
- Students will learn about the scientific method, laboratory equipment, and safety
  procedures. They will define the independent and dependent variable in a given experiment
  and analyze what controls are needed to increase the validity of the experiment. (CR6,
  CR11, CR12, SP3)

## Unit 3: The Chemistry of Life [CR2, CR4, CR5, SP1, SP2]

In this unit, students will do the following:

- Differentiate the chemical elements found in living things and how they assemble to form larger molecules.
- Explain how the properties of water and carbon make them essential to life.
- Compare the four classes of biological macromolecules and describe their functions.

## Sample activities in this unit:

- Students will use representations and models to represent the molecular bonds that hold important biological molecules together, including carbohydrates, proteins, lipids, and nucleic acids. (LO 4.1, LO 4.2, LO 4.3) [CR5, SP2]
- Students will participate in a discussion about how the same repeating molecular units can produce a large number of varied structures among different organisms. (LO 1.15, LO 1.16) [CR4, SP1]

## Unit 4: Biological Macromolecules Lab [CR2, CR4, CR6, CR11, CR12, SP1, SP3]

In this unit, students will do the following:

- Differentiate between biological macromolecules using biochemical assays.
- Explain and simulate the dehydration synthesis of biological macromolecules.
- Record work in the Biological Macromolecules Lab Report to be submitted to the teacher. Lab report sections include the following:
  - o Complete table to identify nutrients.
- Build a glucose molecule and dehydrate then hydrate the molecule. Sample activities in this unit:
  - Students will perform two laboratory simulations to investigate biological macromolecules.
    - a. Students will use representations and models to simulate the dehydration synthesis of carbohydrate polymers.
    - b. Students will plan and implement data collection strategies to use qualitative tests to identify unknown biological macromolecules
    - Science practice skills applied: 1, 3, 4 [CR11, CR12]
    - o Enduring understandings: 4.A, 4.C

## Unit 5: The Cell [CR2, CR4, CR5, SP1, SP2, SP3]

In this unit, students will do the following:

- Describe the current definition of a cell, based on cell theory.
- Describe the structure and function of cell membranes.
- Explain how cells transport materials through their membranes using passive transport (diffusion), facilitated diffusion, active transport, and bulk transport.
- Describe the major cell organelles and subcellular structures in prokaryotic and eukaryotic (plant and animal) cells and state the function of each.
- Explain the steps by which cells respond to internal and external signals. Sample activities

#### in this unit:

• Students will apply cell theory and its implications for defining life, as well as the difference between cell functions in unicellular versus multicellular

organisms. (LO 4.8, LO 4.9, LO 4.10). [CR4, SP1]

 Students will create, analyze and refine models of cell signaling systems and then generate scientific questions involving the evolution of cell signaling systems. (LO 3.31, LO 3.32, LO 3.33)
 [CR5, SP2, SP3]

Unit 6: Cell Structure Lab [CR2, CR4, CR5, CR6, CR7, CR8, CR11, CR12, ,SP1, SP2, SP3, SP4, SP5] In this unit, students will do the following:

- Identify subcellular structures found in cells.
- Apply the scientific method to explain the behavior of large and small molecules partitioning across a semipermeable membrane.
- Record work in the Cell Structure Lab report to be submitted to the teacher. Lab sections include the following:
  - o Cell Structure Table
  - Reading percent concentration table
  - o Reading percent concentration graph
  - o Build physical model of cell

## Sample activities in this unit:

- Students will perform two laboratory simulations to investigate cell structures and function.
  - a. Students will use models to represent the different organelles and subcellular components of the cell and identify their function.
  - b. Students will engage in scientific questioning and plan, collect, and analyze data to explain their observations about osmosis, and to predict when osmosis will occur.
  - Science practice skills applied: 1, 2, 3, 4, 5 [CR 2, 4, 5, 6, 7, 8, 11, 12]
  - o Enduring understandings: 2.B, 4.A, 4.C [SC 3b, 3d]

Unit 7: Cell Cycle Lab [CR2, CR4, CR5, CR6, CR11, CR12, SP1, SP2, SP3]

In this unit, students will do the following:

- Describe what characterizes each stage of the cell cycle.
- Describe what characterizes each stage of mitosis.
- Explain the consequences of cellular reproduction that is unregulated.
- Record work in the Cell Cycle Lab report to be submitted to the teacher. Lab

# sections include the following:

- Cell Division Phase sketches and summary table.
- Cell cycle phase length table
- Mitosis and Meiosis Modeling
- Simulating Meiosis

## Sample activities in this unit:

- Students will participate in a lab simulation in which they use representations and models to communicate what occurs during the cell cycle. They will use scientific explanations and theories to explain what occurs during cancer, in terms of errors in controlling the cell cycle.
  - Science practice skills applied: 1, 2, 3 [CR 2, 4, 5, 6, 11, 12]
  - o Learning objectives applied: 3.7, 3.8

## Unit 8: Mid-Semester Check [CR2]

In this unit, students will do the following:

- Review the topics that they have learned from the beginning of the course.
- Demonstrate knowledge by completing a graded mid-semester check in the style of the AP Biology exam.

## Unit 9: Metabolism [CR2, CR4, CR5, CR6, CR7, SP1, SP2, SP3, SP4]

In this unit, students will do the following:

- Explain how cells use free energy during metabolism to maintain homeostasis.
- Differentiate anaerobic respiration from aerobic respiration and describe the processes that occur in each.
- Compare photosynthesis to cellular respiration and explain the processes that occur in each.

## Sample activities in this unit:

- Students will use models to represent cellular respiration and photosynthesis, ask scientific questions regarding the functioning and evolution of cellular respiration and photosynthesis, and design and interpret experiments regarding the products and reactants of respiration and photosynthesis. (LO 2.4, LO 2.41, LO 2.5, LO 4.6) [CR5, CR6, SP2, SP3]
- Students will participate in a discussion about why cells need energy to function and how that energy is taken in, transported, and consumed. (LO 2.5, LO 4.5, LO 4.6)[CR4, SP1]
- Students will complete an activity to show how there are a number of factors that can affect the rate of an enzyme-facilitated reaction. They will graph the number of toothpicks broken as a function of time. [CR7, SP4]
- Students will label the reactants, the products, and the activation energy on a graph of a
  chemical reaction. They will label the reactants with a plus or a minus to indicate energy
  level at the completion of the reaction and will identify the reaction as exergonic or
  endergonic. [CR7, SP4]
- Students will research other examples of fermentation and anaerobic respiration and will compare and contrast each of these examples with aerobic respiration. [CR4, SP1]
- Students will perform an experiment to demonstrate the cellular respiration process. [CR6, SP3]
- Students will model the Calvin cycle and use the model to explain the Calvin cycle's role in photosynthesis. (CR4, CR5, SP1, SP2)

Unit 10: Cellular Respiration Lab [CR2, CR6, CR11, CR12, SP3, SP4, SP6]

In this unit, students will do the following:

- Apply the scientific method to explain the production of gases during respiration.
- Record work in the Cellular Respiration Lab report to be submitted to the teacher.
   Lab sections include:
  - o Form hypothesis.
  - o Respirometer readings table
  - Results
  - Conclusion

## Sample activities in this unit:

- Students will participate in a laboratory simulation in which they measure the rate of cellular respiration of living organisms. They will develop a scientific question, plan and collect data, and use scientific theories to explain their data.
  - o Science practice skills applied: 3, 4, 6 [CR 2, 6, 11, 12]
  - o *Learning objectives:* (2.4, 2.41, 2.5, 4.6)

## Unit 11: Photosynthesis Lab [CR2, CR6, CR8, CR11, CR12, SP3, SP4, SP5, SP6]

In this unit, students will do the following:

- Apply the scientific method to explain the production of gases during photosynthesis.
- Record work in the Photosynthesis Lab report to be submitted to the teacher. Lab sections include the following:
  - Preliminary Floating Disk table
  - Scientific Method steps

## Sample activities in this unit:

- Students will participate in a laboratory simulation in which they measure the rate of photosynthesis of living organisms. They will develop a scientific question, plan and collect data, analyze data, and use scientific theories to explain their data.
- Students will measure the rate of photosynthesis of living organisms. They

will develop a scientific question, plan and collect data, analyze data, and use scientific theories to explain their data.

- Science practice skills applied: 3, 4, 5, 6 [CR 2, 6, 8, 11, 12]
- o Learning objectives: (2.4, 2.41, 2.5, 4.6)

## Unit 12: Mitosis, Meiosis, and Inheritance [CR2, CR4, CR5, CR9, SP1, SP2, SP6]

In this unit, students will do the following:

- Describe the steps involved in cellular reproduction.
- Differentiate between meiosis and mitosis and explain how it results in genetic variation.
- Analyze the chromosomal basis of inheritance and explain how it leads to Mendelian patterns of inheritance.

## Sample activities in this unit:

- Students will construct models to show how meiosis transfers information to the next generation. (LO 3.10, LO 3.11, LO 3.12, LO 4.5, LO 4.6) [CR4, CR5, SP1, SP2]
- Students will apply mathematical models to validate Mendelian genetic theory and predict genotypic and phenotypic ratios in Mendelian and non- Mendelian inheritance systems. (LO 3.14) [CR5, CR9, SP2, SP-6]
- Students will discuss the benefits versus the harmful effects of telomerase expression.
   They will research and write an essay explaining their position on the topic. [CR9, SP6]

# Unit 13: Mendelian Genetics Lab [CR2, CR5, CR6, CR8, CR9, CR11, CR12, SP2, SP5, SP6] In this unit, students will do the following:

- Predict the genotype and phenotypes of parents and offspring using Punnett squares from one- and two-trait Mendelian crosses.
- Perform Punnett square analysis for non-Mendelian genes, such as codominant, incomplete dominant, and X-linked traits.
- Record work in the Mendelian Genetics Lab report to be submitted to the teacher.
   Lab sections include the following:
  - Monohybrid Punnett square

- o Genotype and phenotype ratio table
- o Dihybrid Punnett square

# Sample activities in this unit:

- Students will participate in a laboratory simulation in which they use Punnett squares to
  calculate the genotype of offspring and parents. They will explain their predictions using
  accepted theories of genetic inheritance.
  - Science practice skills applied: 2, 6 [CR 2, 5, 6, 8, 9, 11, 12]
  - o *Learning objectives:* 3.2, 3.3

# Unit 14: Gene Expressions and Biotechnology [CR2, CR4, CR5, CR6, CR7, SP1, SP2, SP3, SP4] In this unit, students will do the following:

- Describe the steps of transcription and translation.
- Define gene regulation and describe where, when and how gene expression is controlled within cells.
- Compare how different genes are expressed and regulated among prokaryotes and eukaryotes.
- Define mutation and describe how it can affect the evolution of a population.
- Apply biotechnological techniques to bioengineering problems. Sample

## activities in this unit:

- Students will plan a procedure for a genetic transformation using plasmids or other modern biotechnological technique, as well as a data collection plan, which will provide evidence that the transformation was successful. (LO 3.1, 3.3, 3.5, 3.6, 4.7) [CR6, CR7, SP3, SP4]
- Students will research the evolution of a gene family and write a brief essay explaining what gene duplication and mutation events led to the divergence of the gene family. Students will create a chart listing the different ways that genomes can vary and summarizing what they know about each. [CR4, CR5, SP1, SP2]

## Unit 15: Biotechnology Lab [CR2, CR6, CR10, CR11, CR12, SP3]

In this unit, students will do the following:

- Apply the scientific method to identify genetically similar organisms using simulated biotech methods such as restriction enzyme analysis of DNA and gel electrophoresis.
- Describe the methods and social issues involved with bioengineering techniques using simulations, such as genetic engineering techniques used to create insect or herbicide-tolerant plants.
- Design engineering solutions to bioengineering problems.
- Record work in the Biotechnology Lab report to be submitted to the teacher.

## Sample activities in this unit:

- Students will participate in a laboratory simulation in which they use restriction enzymes to identify genetically related individuals and create a strategy to engineer genetically-transformed corn plants.
  - o Science practice skills applied: 3[CR 6, 10, 11, 12]
  - o Enduring understandings: 3.B, 3.C

# Unit 16: Semester Review and Exam [CR2]

In this unit, students will do the following:

- Review all topics covered this semester.
- Demonstrate knowledge by completing a graded semester exam written in the style of the AP Biology exam.

#### Semester B

## Unit 1: Course Overview [CR1, CR2]

In this unit, students will do the following:

- Acquaint themselves with the goals and expectations of the course.
- Ensure they have the required materials for the course. [CR1]
- Learn about the types of activities that will appear in the course.

# Unit 2: Mechanisms of Evolution [CR2, CR4, CR5, CR8, CR10, SP1, SP2, SP5]

In this unit, students will do the following:

- Analyze how environmental factors can affect gene frequency in a gene pool.
- Compare the conditions that can result in speciation.
- Critique scientific hypotheses regarding the origin of life on Earth and reconcile these hypotheses to current understanding of phylogeny.

# Sample activities in this unit:

- Students will use mathematical models to understand how populations change and will apply the mechanisms of evolution to explain these observations. (LO 1.1, LO 1.2, LO 1.3, LO 3.24) [CR4, CR5, SP1, SP2)
- Students will engage in a discussion on the societal issues related to evolutionary theory and its common misconceptions. [CR10]
- Students will explain how to use the Hardy-Weinberg equation to determine if a population is evolving. [CR8, SP5]

# Unit 3: Darwinian Evolution Lab [CR2, CR5, CR6, CR8, CR9, CR11, CR12, SP3, SP5, SP6] In this unit, students will do the following:

- Apply Hardy-Weinberg equilibrium and the mechanism of evolution to predict changes in the allele frequency of a simulated population during periods of equilibrium and selection.
- Record work in the Darwinian Evolution Lab report to be submitted to the teacher. Lab sections include the following:

- o Rainfall and Bird Beak histogram
- Finch population graph
- o Beak size graph
- Hardy-Weinberg Equilibrium table

## Sample activities in this unit:

- Students will participate in a laboratory simulation in which they use models to demonstrate
  Hardy-Weinberg Equilibrium. They will then use Hardy-Weinberg Equilibrium to test for the
  presence of natural selection occurring in populations. They will analyze data and use scientific
  theories to explain how small ecological changes can affect populations, communities, and
  ecosystems.
  - Science practice skills applied: 3, 5, 6 [CR 5, 6, 8, 9, 11, 12]
  - Learning objectives: 1.1, 1.2, 1.3, 3.24

# Unit 4: Phylogeny Lab [CR2, CR5, CR6, CR8, CR9, CR11, CR12, SP2, SP3, SP5, SP6]

In this unit, students will do the following:

- Use evidence from the comparison of DNA sequences through BLAST to deduce evolutionary relationships between organisms.
- Record work in the Phylogeny Lab report to be submitted to the teacher. Lab sections include the following:
  - Construct a cladogram
  - Compare percent similarity
  - Form hypothesis
  - Analyze cladograms

## Sample activities in this unit:

- Students will participate in a laboratory simulation in which they construct cladograms based on genetic evidence to demonstrate the evolutionary relationship between different organisms. They will analyze these data and, applying the theory of evolution, explain how organisms diverged from each other.
  - Science practice skills applied: 2, 3, 5, 6 [CR 5, 6, 8, 9, 11, 12]
  - o *Learning objectives*: 1.11, 1.12 1.13, 1.17, 1.18, 1.19

AP® is a trademark registered by the College Board, which is not affiliated with, and does not endorse, this product.

20

## Unit 5: The Evolutionary History of Biological Diversity [CR2, CR4, SP1]

In this unit, students will do the following:

- Compare organisms across the three domains of life and explain why viruses do not fit any of these classifications.
- Distinguish prokaryotes from each other and unicellular eukaryotes.
- Categorize eukaryotes into kingdoms and identify similarities and differences that exist within a kingdom.

## Sample activities in this unit:

• Students will examine how organisms are classified and analyze those classifications to deduce the evolutionary history of groups of organisms. (LO 1.11, LO 1.12, LO 1.13, LO 1.16) [CR4, SP1]

## Unit 6: Unicellular Organisms Lab [CR2, CR4, CR6, CR11, CR12, SP1, SP3]

- Explain the unity of life and diversity of life by observing and comparing similarities between bacteria.
- Record work in the Unicellular Organisms Lab report to be submitted to the teacher. Lab sections include the following:
  - o Test table
  - o Recording experiment results in table
  - Classify living organisms

## Sample activities in this unit:

- Students will observe prokaryotic and eukaryotic unicellular life using virtual microscopy. They will identify traits that are common to all life, prokaryotes and eukaryotes, and they will identify differences that demonstrate the diversity of life in the biosphere.
  - Science practice skills applied: 1, 3 [CR 4, 6, 11, 12]
  - o *Learning objectives*: 1.11, 1.12 1.13, 1.16

# Unit 7: Multicellular Organisms Lab [CR2, CR4, CR6,

# CR11, CR12, SP1, SP3]

In this unit, students will do the following:

- Explain the unity of life and diversity of life by observing and comparing similarities between phyla of multicellular organisms.
- Record work in the Multicellular Organisms Lab report to be submitted to the teacher.
   Lab sections include the following:
  - o Traits of Different Phyla table
  - Classification of Multicellular Organisms table Sample

#### activities in this unit:

- Students will participate in a laboratory simulation in which they observe representative organisms from across multicellular phyla given 3–4 representative images of each phylum. They will then use the theory of common descent to explain the wide variety of organisms found at all scales in the biosphere.
  - o Science practice skills applied: 1, 3 [CR 4, 6, 11]
  - o Learning objectives: 1.11, 1.12 1.13, 1.16

## Unit 8: Mid-Semester Check [CR2]

In this unit, students will do the following:

- Review the topics that they have learned from the beginning of the course.
- Demonstrate knowledge by completing a graded mid-semester check in the style of the AP Biology exam.

Unit 9: Animal Form and Function [CR2, CR4, CR5, CR6, CR8, SP1, SP2, SP3, SP5]

- Describe animal physiology and analyze how animals are adapted to their niches on Earth.
- Analyze how the digestive, circulatory, respiratory, immune, excretory, and endocrine systems interact to maintain homeostasis in animals.
- Explain how animals develop and utilize common signaling pathways in their development.
- Compare behavior among different animals and explain how behavior arises in animals through electrochemical signaling in the nervous system.

## Sample activities in this unit:

- Students will engage in scientific questioning on the structure, function, and evolution of animal tissues, organs, and organ systems. (LO 4.8) [CR4, CR6, SP1, SP3]
- Students will use representations and models to analyze the structure and function of animal tissues, organs, and organ systems. (LO 4.9) [CR5, SP2]
- Students will analyze physiological processes mathematically and make predictions about how an organism's physiological state can change due to external influences. (LO 4.9) [CR4, CR8, SP1, SP5]

# Unit 10: Digestion, Circulation, and Respiration Lab [CR2, CR4, CR5, CR6, CR7, CR8, C11, C12, SP1, SP2, SP3, SP4, SP5]

In this unit, students will do the following:

- Explain how the cells, tissues, and organs of the digestive system extract nutrients from food.
- Apply the scientific method to explain how the cells, tissues, and organs of the circulatory system respond to stress.
- Explain how the cells, tissues, and organs of the respiratory system transport gases.
- Record work in the Digestion, Circulation, and Respiration Lab report to be submitted to the teacher. Lab sections include the following:
  - o Calculate volume of air
  - Formulate hypothesis
  - Create flowchart

Write an essay

## Sample activities in this unit:

- Students will participate in a laboratory simulation in which they use models and engage in
  scientific questioning to study the digestive, cardiovascular, and respiratory systems. They will
  plan, collect, and analyze data to explain physiological phenomena relating molecular
  processes to macroscopic organ systems. If accessible, students will participate in a cow heart
  dissection.
  - Science practice skills applied: 1, 3, 4, 5 [CR 4, 5, 6, 7, 8, 11, 12]
  - o Enduring understandings: 2.A, 2.B, 2.C, 2.D, 2.E, 3.E, 4.A

# Unit 11: Excretion and Nervous System Lab [CR2, CR4, CR6, CR7, CR8, CR11, CR12, SP1, SP3, SP4, SP5]

In this unit, students will do the following:

- Describe how the cells, tissues, and organs of the excretory system explain the composition of urine.
- Describe how the cells, tissues, and organs of the nervous system explain how humans perceive and respond to their environment.
- Record work in the Excretion and Nervous System Lab report to be submitted to the teacher. Lab sections include the following:
  - Senses table
  - Senses Neural map
  - o Taste Receptor Density table
  - Smell Discrimination table
  - Two-Point Discrimination table
  - Localization of Sound table
  - Blind Spot table
  - Liquid Excretory System map
  - Urinalysis Lab table

# Sample activities in this unit:

• Students will participate in a laboratory simulation in which they study ways by which the brain perceives the world and how wastes are eliminated by the kidneys. They will plan, collect, and analyze data to explain physiological phenomena relating molecular processes to macroscopic organ systems. They will complete the following sensory system exercises: taste threshold,

smell discrimination, two-point discrimination, thermal adaptation, localization of sound, proprioception, blind spot, visual acuity, astigmatism, myopia/hypermetropia, accommodation, and afterimages.

- Science practice skills applied: 1, 3, 4, 5 [CR 4, 6, 7, 8, 11, 12]
- o *Learning objectives*: 3.40, 3.43, 3.44-3.49 4.8, 4.9

## Unit 12: Ecology [CR2, CR4, CR7, CR8, CR10, SP1, SP4, SP5]

In this unit, students will do the following:

- Explain how individual interactions among organisms result in changes in populations.
- Explain how different populations interact in communities and ecosystems.
- Analyze the benefits and costs of strategies used to preserve ecosystems. Sample activities

## in this unit:

- Students will use mathematics to model ecosystem interactions and collect and evaluate data
  to relate knowledge regarding matter and energy cycling across various ecological scales. (LO
  4.11, LO 4.12, LO 4.13, LO 4.14, LO 4.15) [CR4, CR7, CR8, SP1, SP4, SP5]
- Students will participate in a discussion about human impact on the ecosystem, ecosystem services, and natural resource use. [CR10]
- Students will chart population growth in a set area over a set period of time for 1) amoebas in Lake Erie (r-selected) and 2) panthers in the Everglades (K-selected) and include information about the factors leading to changes in those populations. [CR7, SP4]

Students will practice calculating changes in population size by substituting sample numbers into a formula. [CR8, SP5]

 $\ @$  2018 Pearson Online & Blended Learning K–12 USA. All rights reserved.

 $\ensuremath{\mathsf{AP}}\xspace$  is a trademark registered by the College Board, which is not affiliated with, and does not endorse, this product.

## Unit 13: Ecology Lab [CR2, CR5, CR6, CR9, CR11, CR12, SP2, SP3, SP6]

In this unit, students will do the following:

- Describe the ecological relationships present in natural ecosystems by creating a model ecosystem.
- Apply the scientific method to observe the cycling of matter in an actual ecosystem during a field walk.
- Record work in the Ecology Lab report to be submitted to the teacher. Lab sections include the following:
  - o Recording data and observations
  - Complete field journal
  - Create nutrient and food chain diagrams Sample

#### activities in this unit:

- Students will participate in a laboratory simulation in which they observe a natural ecosystem and build a model ecosystem. They will engage in scientific questioning and apply scientific explanations to explain observations they make in the field.
  - Science practice skills applied: 2, 3, 6 [CR 5, 6, 9, 11, 12]
  - o *Learning Objectives*: 4.13, 4.16

## Unit 14: Semester Review and Full-Length Practice Exam [CR2, CR9, SP6]

In this unit, students will do the following:

- Review the entire course, using the results of the mid-semester check and unit tests to focus this review.
- Complete a full-length practice exam in the style of the AP Biology exam, over the course of three days.
- Students will explain how they feel about genetically modified organisms (GMOs) in grocery stores. They will use evidence to explain whether they feel safe consuming GMOs and if and how they would change governmental regulations on GMOs. (CR9, SP6)

# Unit 15: Semester Project: Research Paper [CR2, CR6, CR7, CR8, CR12, SP3, SP4, SP5]

In the project unit, students will plan and carry out their own scientific observation using household materials or a local field area. They will create a project proposal that describes their hypothesis and their proposed experimental methods. They will then carry out their experiment inside or in the field. They will collect data and then analyze that data for trends, as well as present the data in the form of graphs or tables. They will then describe their study in a four-section scientific paper (introduction, methods, results, discussion). (CR6, CR7, CR8, CR12, SP3, SP4, SP5)

## Unit 16: Semester Review and Exam [CR2]

In this unit, students will do the following:

- Review all topics covered this semester.
- Demonstrate knowledge by completing a graded semester exam written in the style of the AP Biology exam.

27

# **AP Calculus**



# **AP Calculus AB Syllabus**

Curricular Requirements	Page(s)
CR1a The course is structured around the enduring understandings within Big Idea 1: Change.	5, 6, 8, , 11, 14, 16 15
CR1b The course is structured around the enduring understandings within Big Idea 2: Limits.	6, 8, 10, 11, 13- 16
CR1c The course is structured around the enduring understandings within Big Idea 3: Analysis of Functions.	12, 13-16
CR2a The course provides opportunities for students to reason with definitions and theorems.	5, 6, 7, 10, 12
CR2b The course provides opportunities for students to connect concepts and processes.	3, 5-8, 10, 12-16
CR2c The course provides opportunities for students to implement algebraic/computational processes.	4, 5, 6, 8, 10, 12-16
CR2d The course provides opportunities for students to engage with graphical, numerical, analytical, and verbal representations and demonstrate connections among them.	5, 6, 8, 10, 11, 12, 14- 16
CR2e The course provides opportunities for students to build notational fluency.	5, 6, 8, 10, 12-14
CR2f The course provides opportunities for students to communicate mathematical ideas in words, both orally and in writing.	6- 8, 11-16
CR3a Students have access to graphing calculators.	3, 5, 12, 14
CR3b Students have opportunities to use calculators to solve problems.	6-9, 11-15
CR3c Students have opportunities to use a graphing calculator to explore and interpret calculus concepts.	6-8, 11-16
CR4 Students and teachers have access to a college-level calculus textbook.	6-9, 12-15

Appendices page 2006 Pennwood Cyber Charter School

# **Course Summary**

In this course, students complete a full academic year of coursework similar to a first-year college-level calculus course. This course covers the framework, mathematical practices, and curriculum requirements for an AP® Calculus AB

course as required by the College Board. This course combines practical experience with the methods and applications of calculus and will prepare students to take the AP Calculus AB exam in the spring. The overarching topics in this course are limits and continuity, derivatives, integrals, and mathematical modeling. Students learn through direct instruction, regular checks and practices, discussions, portfolios, and a project completed during the second semester. Students also take a practice assessment for the AP Calculus AB exam prior to the actual AP Calculus test date.

## **Course Units**

### Semester A

- Unit 1: Course Overview
- Unit 2: Prerequisites for Calculus
- Unit 3: Limits and Continuity
- Unit 4: Derivatives
- Unit 5: Mid-Semester Check
- Unit 6: More Derivatives
- Unit 7: Applications of Derivatives
- Unit 8: Semester Exam

## Semester B

- Unit 1: Course Overview
- Unit 2: The Definite Integral
- Unit 3: Differential Equations and Mathematical Modeling
- Unit 4: Mid-Semester Check
- Unit 5: Applications of Definite Integrals
- Unit 6: Review and Full-Length Practice Exam
- Unit 7: Semester Project: Response to a Letter
- Unit 8: Semester Exam

## Where Big Ideas Are Taught

Big Idea	Semester A Units	Semester B Units
Change	A.3	
Limits	A.3	
Analysis of Functions	A.4, A.6, A.7	B.2, B.3, B.5

## **Resource Requirements**

Finney, Ross L., Demana, Franklin D., Waits, Bert K., Kennedy, D., and David M. Bressoud. *Calculus: Graphical, Numerical, Algebraic.* 5th ed., Pearson Education, Inc., 2016.

Students are required to purchase their own AP Calculus AB approved graphing calculator. [CR3a]

## **Writing Assignments**

In each lesson, students work on activities that involve writing solutions to problems that reinforce the instruction from the lesson. Students also reflect on the lesson by responding to meta-cognitive prompts, and reflecting on ways they can organize their learning using flow charts, concept maps, step-by-step problem- solving ideas, index cards, and other suggestions that encourage self-directed learning. [CR2b, CR2f]

#### **Assessments**

Throughout the course, a variety of formative and summative assessments are used to assess student learning and prepare students for the expectations of the AP Calculus AB exam. Students are provided with ample opportunity for skill practice, engagement in meaningful discourse with their peers, and application of their understanding via tasks that are representative of real-world scenarios. Summative assessment types lend themselves to a deeper level of rigor and include portfolios and discussions. Formative assessments are designed to be auto-graded to give students and teachers instant feedback for targeted instruction.

Most lessons contain a quick check assessment that covers the objectives in the lesson, and most units have at least one cumulative quiz that also assesses lesson objectives. Each instructional unit culminates in an online practice to help students review unit concepts and skills, followed by a unit test that consists of multiple choice and short answer and/or essay questions. To aid students in retaining content throughout the course of a semester, a mid-semester check unit appears in the middle of each semester, featuring a low-risk practice assessment covering the objectives learned up to that point during the semester.

A graded full-length practice exam in the style of the AP Calculus AB exam is given at the end of Semester B. Each semester ends with a semester exam.

Most units feature a discussion or portfolio that promotes critical thinking by expanding on topics students have learned. Each semester ends with a semester project and a semester exam. Graded assessments and participation all count toward the student's final grade.

## LiveLesson® Online Classroom

Students will collaborate synchronously with peers through the LiveLesson system. LiveLesson sessions allow students to ask questions and take part in real-time discussions. During these sessions, students have the opportunity to describe concepts orally, as well as to work collaboratively with their peers to solve complex problems. These sessions are also used to reinforce difficult concepts and to provide a low-stakes environment for students to develop notational fluency and practice new skills and concepts.

# **Notational Fluency**

Knowing the appropriate notation to use without obvious suggestion is characteristic of a student who performs well on the AP® Calculus AB exam. Throughout the course, there are many opportunities for students to develop and use notational skills. This happens frequently during LiveLessons as well as in sample free-response activities where students interpret problems presented verbally and show their solutions using the correct notation.

#### **Course Outline**

#### Semester A

## **Unit 1: Course Overview**

In this unit, students will do the following:

- Acquaint themselves with the goals and expectations of the course.
- Ensure they have the required materials for the course. [CR3a, CR4]
- Learn about the types of activities that will appear in the course.

# **Unit 2: Prerequisites for Calculus**

In this unit, students will do the following:

• Review essential prerequisite skills from precalculus. Sample

#### activities in this unit:

Students become familiar with their calculator approved for AP courses, reviewing basic
uses such as entering calculations and graphing functions, and how screen resolution issues
can impact the appearance of certain graphs. [CR3a, CR3b]

Required reading: *Calculus: Graphical, Numerical, Algebraic*. 5th ed., Chapter 1: Prerequisites for Calculus [CR4]

## Unit 3: Limits and Continuity [CR1a] [Big Ideas: Change, Limits]

In this unit, students will do the following:

- Calculate limits of functions at a point and interpret their meaning. [CR2a, CR2d, CR2e]
- Calculate limits of functions at infinity and interpret their meaning. [CR2a, CR2d, CR2e]
- Calculate infinite limits of functions and interpret their meaning. [CR2a, CR2d, CR2e]
- apply the concept of slope to tangent lines and rates of change. [CR2b, CR2c, CR3c]

## Sample activities in this unit:

Students complete an activity where they write infinite limits, and limits at infinity, to verify
asymptotic behavior of functions. Students generalize to verify that for functions of the form f

- Students apply what they learned in the unit by creating a concept map that
- shows hierarchies and interconnectedness between the different kinds of limits, including
  one-sided limits and limits at infinity, and continuity. The concept map is accompanied by 1

  2 paragraphs of text that gives a verbal description of the concept map. [CR2b, CR2f]

Required reading: *Calculus: Graphical, Numerical, Algebraic*. 5th ed., Chapter 2: Limits and Continuity [CR4]

# Unit 4: Derivatives [CR1a, CR1b] [Big Ideas: Analysis of Functions]

In this unit, students will do the following:

- Determine the conditions necessary for a function to be differentiable. [CR2a, CR2d, CR2e]
- Use the definition of a derivative to find derivatives of differentiable functions and derivatives at a point. [CR2a, CR2d, CR2e, CR3c]
- Apply the Intermediate Value Theorem for derivatives. [CR2a, CR2d, CR2e]
- Apply differentiation rules to find derivatives of functions. [CR2a, CR2d, CR2e]
- Solve problems involving rates of change. [CR2b, CR2c, CR3b]

## Sample activities in this unit:

• Students participate in a discussion about derivatives. They examine the difference between the two definitions of a derivative:

flax? 
$$\lim \frac{f \cdot 2x \cdot 2 \cdot h \cdot 2 \cdot f \cdot 2x \cdot 2}{h \cdot 20 \cdot x \cdot 2 \cdot h}$$
 and flaa?  $\lim \frac{f \cdot 2x \cdot 2 \cdot f \cdot 2a \cdot 2}{x \cdot 2a}$ 

Students discuss the two definitions using the same open-ended question and come up with their own specific example that uses both definitions.

Students resolve any misconceptions they might have about the use of these definitions based on other student responses. [CR2a, CR2b, CR2f]

- In this activity, students use their graphing calculator to complete a guided exploration where they explore the concept of differentiability at a point. Students are presented with a function of the form  $f(x) = a^3 x \cdot h \cdot k$  and
  - asked to use the zoom feature on their calculator to investigate local linearity at x = h. Students are guided to continue zooming and to give estimates of the slope of the tangent line at x = h as they continue to zoom. Students are guided towards concluding that the tangent line at x = h has an undefined slope. [CR3c]
- Students are given functions in different analytical forms and asked to sketch the
  function graphically showing maxima and minima, inflections points, asymptotes, where
  applicable, and express the form of the function verbally.
- In lesson 6, students use their calculator to find the numerical derivative of a function.

Required reading: Calculus: Graphical, Numerical, Algebraic. 5th ed., Chapter 3: Derivatives [CR4]

# Unit 5: Mid-Semester Check [CR1a, CR1b]

In this unit, students will do the following:

- Review the topics that they have learned from the beginning of this semester.
- Demonstrate knowledge by completing a graded mid-semester check in the style of the AP Calculus AB exam.

## Unit 6: More Derivatives [CR1b] [Big Ideas: Analysis of Functions]

In this unit, students will do the following:

- Use the chain rule to find derivatives of composite and implicitly defined functions. [CR2a, CR2d, CR2e]
- Determine derivatives of inverse trigonometric functions. [CR2a, CR2d, CR2e, CR3b]
- Determine derivatives of exponential functions. [CR2a, CR2d, CR2e, CR3b]
- Determine derivatives of logarithmic functions. [CR2a, CR2d, CR2e, CR3b] Sample activities

#### in this unit:

- Students engage in a discussion about implicitly-defined functions. They discriminate between implicitly-defined functions, determining when it is possible to break apart a function into two explicitly defined functions, and when it is not possible or convenient to do so. Students give examples of each kind of implicitly defined function and to manually compute the solutions of the examples they provide. Students in need of more insight into this topic benefit from their own participation as well as from reading other student responses. [CR2b, CR2c, CR2f]
- Students are provided with a series of functions, where their differentiation requires selection of the differentiation method. The types of functions include implicit functions as well as functions that require the application of the chain rule. Students should state the appropriate derivative rule for each function while engaging in this activity.

Required reading: *Calculus: Graphical, Numerical, Algebraic*. 5th ed., Chapter 4: More Derivatives [CR4]

## Unit 7: Applications of Derivatives [CR1b] [Big ideas: Analysis of Functions]

In this unit, students will do the following:

- Identify local and global extreme values of a function. [CR2a, CR2b, CR2d, CR2e, CR3b, CR3c]
- Identify intervals over which a continuous function is increasing, decreasing, or constant. [CR2a, CR2b, CR2d, CR2e, CR3b, CR3c]
- Relate the graph of a function with the graphs of its first and second derivatives.
   [CR2b, CR2d]
- Apply the Mean Value Theorem to solve problems. [CR2a, CR3b,]
- Solve problems involving related rates. [CR2b, CR2c, CR3b, CR3c] Sample activities

### in this unit:

- Students create a video in which they create their own twice-differentiable function and draw its graph without a calculator by analyzing its properties, including zeros, asymptotes, symmetry, first derivative, second derivative, local and global extreme values, the concavity test, concave up, and concave down. Students then show the graph of their function on a graphing calculator to verify their work. Students communicate orally and in writing to explain and show their work. A video that meets or exceeds expectations, as outlined in a grading rubric, demonstrates an understanding of how first- and second-order derivatives are used to more accurately draw the graph of the function.
- In the above Activity it will be additionally indicated to the students that their use of appropriate mathematical language, both written and spoken, will be checked.
- Students will develop models of real-world situations and solve these optimization or related rates problems using derivatives. Ex: Finding the value of x that maximize the area of a rectangle with side lengths x and  $12 x^2$ .
- In lesson 1, students will identify the zeros of derivatives by hand and by using a calculator.
- In lesson 2, students will verify whether the conditions of the Mean Value Theorem or Rolle's Theorem are satisfied before applying the theorem.
- In lesson 3, students will match graphical, verbal, and analytical representations of functions.

functions. All students will have access to video players that they can use to create their presentation. [CR2b, CR2d, CR2f, CR3c]

• Students use their calculator to find derivatives at a point and apply it to modeling and optimization problems. [CR 3a, CR3b]

Required reading: *Calculus: Graphical, Numerical, Algebraic*. 5th ed., Chapter 5: Applications of Derivatives [CR4]

# Unit 8: Semester Exam [CR1a, CR1b]

In this unit, students will do the following:

- Review all topics covered this semester.
- Demonstrate knowledge by completing a graded semester exam written in the style of the AP Calculus AB exam.

#### Semester B

#### **Unit 1: Course Overview**

In this unit, students will do the following:

- Acquaint themselves with the goals and expectations of the course.
- Ensure they have the required materials for the course. [CR3a, CR4]
- Learn about the types of activities that will appear in the course.

#### Unit 2: The Definite Integral [CR1c] [Big Ideas: Analysis of Functions]

In this unit, students will do the following:

- Write the limit of a Riemann sum in integral notation and find definite integrals using area. [CR2a, CR2b, CR2e]
- Apply the rules for definite integrals to evaluate definite integrals. [CR2a]
- Apply the Fundamental Theorem of Calculus to find antiderivatives. [CR2a, CR2b]
- Apply the evaluation part of the Fundamental Theorem of Calculus to evaluate definite integrals. [CR2a, CR2b, CR2c, CR3b, CR3c]
- Use the Trapezoidal Rule to approximate areas under a curve. [CR2a, CR2b, CR2e]

#### Sample activities in this unit:

- Students write 4–5 paragraphs explaining the Fundamental Theorem of Calculus Part 1 (the antiderivative part) and The Fundamental Theorem of Calculus Part 2 (the evaluation part). Students incorporate vocabulary words and terms associated with each theorem (i.e. definite integral, antidifferentiation, and limits of integration) associated with each part and explain the role of each when working with integrals. Students also explain the connection between the two parts. A paper that meets or exceeds expectations, as outlined in a grading rubric, demonstrates an understanding of, and the connection between, both parts of the Fundamental Theorem of Calculus. [CR2a, CR2b, CR2d, CR2f]
- Students complete an activity that involves writing definite integrals of the

form 
$$\int_a^b f(x) dx$$
 the limit of a Reimann Sum  $\lim_{n \to \infty} \sum_{k=1}^n f(c_k) \Delta x$ . [CR2e]

 Students complete an activity and assignment that involves finding the average value of a function using the fnInt (NINT) function on their calculator. [CR3c]

Required reading: *Calculus: Graphical, Numerical, Algebraic*. 5th ed., Chapter 6: The Definite Integral [CR4]

# Unit 3: Differential Equations and Mathematical Modeling [CR1b, CR1c] [Big Ideas: Analysis of Functions] In this unit, students will do the following:

- Use substitution methods to evaluate definite and indefinite integrals. [CR2b, CR2c]
- Evaluate definite integrals using a calculator. [CR3b]
- Determine general and particular solutions to a differential equation. [CR2b, CR2c]
- Solve initial value problems. [CR2b, CR2c, CR2e, CR3b]
- Solve separable differential equations and apply them to solving problems relating to exponential growth and decay. [CR2b, CR2c, CR2e, CR3b]

#### Sample activities in this unit:

Students create a graphic organizer under the topic of Differential Equations. The graphic
organizer shows important relationships among the subtopics they have learned about in this
unit. Key terms such as slope fields, indefinite integrals, substitution methods for integration,
and separable differential equations, are included along with a description of each topic. [CR2b,
CR2f]

Required reading: *Calculus: Graphical, Numerical, Algebraic*. 5th ed., Chapter 7 (7.1, 7.2, 7.4): Differential Equations and Mathematical Modeling [CR4]

### Unit 4: Mid-Semester Check [CR1b, CR1c]

In this unit, students will do the following:

- Review the topics that they have learned from the beginning of this semester.
- Demonstrate knowledge by completing a graded mid-semester check in the style of the AP Calculus AB exam.

#### Unit 5: Applications of Definite Integrals [SC1c] [Big Ideas: Analysis of Functions]

In this unit, students will do the following:

- Solve problems involving accumulation and net change. [CR2b, CR2c, CR2d, CR3b, CR3c]
- Apply definite integrals to determine areas in the coordinate plane. [CR2b, CR2c, CR2d, CR2e, CR3b, CR3c]
- Apply definite integrals to determining volume of three-dimensional solids. [CR2b, CR2c, CR2d, CR2e, CR3b, CR3c]
- Integrate with respect to y to solve area and volume problems determined by functions of y. [CR2b, CR2c, CR2d, CR2e, CR3b, CR3c]

#### Sample activities in this unit:

- In this activity, students are given 4 problems relating to this unit. Each student chooses one problem to solve. In their solution, each student purposely introduces an error in notation. Students post their solution for other students to see. Other students exercise notational fluency by identifying the error in notation and by making corrections using the appropriate notation. [CR2b, CR2e, CR2f]
- Students use their graphing calculator to solve an equation of the form ds/dt = 0.
- Students use their calculator to calculate volumes by slicing, volumes of revolution, and volumes using cylindrical shells. [CR3a, CR3b]
- The students will find solutions to real-world problems, including the work done in stretching a spring.

Required reading: *Calculus: Graphical, Numerical, Algebraic*. 5th ed., Chapter 8 (8.1, 8.2, 8.3, 8.5): Applications of Definite Integrals [CR4]

#### Unit 6: Review and Full-Length Practice Exam [CR1a, CR1b, CR1c]

In this unit, students will do the following:

- Review the entire course, using the results of the mid-semester check and unit tests to focus this review.
- Use their graphing calculator to solve an equation of the form ds/dx = 0.

• Complete a full-length practice exam in the style of the AP Calculus AB exam, over the course of three days. This includes a multi-part problem where students apply the first derivative test for local extrema and provide justifications for answers.

## Unit 7: Semester Project: Response to a Letter [CR1a, CR1b, CR1c]

In the project unit, students act as a mathematical consultant. They respond to a written letter in which a client asks the student to address a number of mathematical problems the client needs help solving. Students research solutions using nDeriv (NDER), fnInt (NINT), and graphical analysis features of their graphingcalculator.

Students create and submit a verbal, numerical (including data), and computational response to the client's request. It is expected that the response is written in a way that demonstrates mastery of the enduring understandings. [CR2b,CR2c, CR2d, CR2f, CR3c]

#### Unit 8: Semester Exam [CR1b, CR1c]

In this unit, students will do the following:

- Review all topics covered this semester.
- Demonstrate knowledge by completing a graded semester exam written in the style of the AP Calculus AB exam.





## **AP Computer Science Principles**

#### **Course Overview**

The Zulama AP Computer Science Principles Course is structured by the Conceptual Framework established by the College Board. This includes six Computational Thinking Practices: Skills and five Big Ideas.

The content of the Zulama AP Computer Science Principles course was originally written and structured by Ruth Comley, faculty at the Entertainment Technology Center at Carnegie Mellon University in Pittsburgh, Pennsylvania. GameMaker Studio 2 was chosen as the game engine to teach computer science principles due to its professional game design interface, high interest skill development, and functional GML scripting language. The computer game design principles and skills high school students develop using GameMaker Studio 2 interfaced also are taught in the over 400 university game design programs in the United States, both at the undergraduate and graduate levels.

Through a study of computer science principles and game design, students in the Zulama AP Computer Science Principles course:

- apply computer science principles and transferable skills by building playable digital games,
- program using GML scripting language and the GameMaker Studio™ interface,
- engage in creative design opportunities by applying knowledge of game mechanics,
- collaborate in design teams using the iterative design process,
- expand knowledge of the global impact of computer innovations,
- explore career and advanced education opportunities in the study of computer science and computer game design through the Explore Computer Innovations activity
- design and code a playable game that meets the expectations of the Performance Task
- prepare for the College Board AP CSP Exam

#### **Pedagogy**

This AP Computer Science Principles course develops computational thinking practices that students use to problem solve and to critically analyze innovations in computing. The course is appropriate for students who have completed a high

school algebra course. Students learn advanced computer science principles by completing rigorous computer game projects. They plan, design, code, and test software using the scripting language GML in GameMaker: Studio. Students gain a deep understanding of the global impact of the Internet through the study of game design, game programming, and the fast growing and diverse global video game industry.

This course emphasizes building computer science vocabulary and applying computer science principles and essential knowledge of coding practices.

Students engage in a variety of activities where they design, code, iterate, and share playable games in a 2d environment defined through the course Big Ideas and Learning Objectives.

Total course time: 140 hours = approximately 37 weeks of instruction when delivered in 45 minute periods and 5 classroom periods per week. The course fits flexibly into other formats, such as block scheduling.

## **Course Delivery**

Teachers and students each have their own login and password to access the digital curriculum through the browser-based Passport platform. This digital curriculum provides:

#### **Features of Passport include:**

- Content delivery
- Course scheduling
- Edulastic online assessment integration
- Real time gradebook
- Teacher to student messaging
- Teacher control of student rosters and passwords
- Teacher keys and other resources

## Primary Programming Environment GameMaker Studio 2

#### **Zulama AP Computer Science Principles Resources**

- Instructional Videos
- Assessment rubrics

- Module guizzes
- Digital Portfolio template

#### **Teacher Resources**

- Schell, Jesse. The Art of Game Design: A Book of Lenses. New York: CRC Press, 2008.
- Dale, Nell and Lewis, John. Computer Science Illuminated. Jones & Bartlett, 2015.
- Interactive book "How to Think Like a Computer Scientist: Interactive Edition" Runestone Interactive Project at Luther College

#### **AP CSP Conceptual Framework**

## **Computational Thinking Practices**

**CPT1:** Computational Solution Design

CPT2: Algorithms and Program Development CPT3:

Abstraction in Program Development CPT4: Code Analysis

**CPT5**: Computing Innovations **CPT6**: Responsible Computing

#### **Big Ideas**

The AP Computer Science Principles course is built on five Big Ideas. For specific Enduring Understandings, Learning Objectives, and Essential Knowledge Statements that support each Big Idea, please refer to the <u>College Board Course and Exam Description (CED) binder for AP CSP.</u>

#### (CRD) Big Idea 1: Creative Development

When developing computing innovations, developers can use a formal, iterative design process or experimentation. While using either approach, developers will encounter phases of investigating and reflecting, designing, prototyping, and testing. Additionally, collaboration is an important tool to use at any phase of development because considering multiple perspectives allows for improvement of innovations

#### (DAT) Big Idea 2: Data

Data is central to computing innovations because it communicates initial conditions to programs and represents new knowledge. Computers consume data, transform data, and produce new data, allowing users to create new information or knowledge to solve problems through the interpretation of this data. Computers store data digitally, which means that the data must be manipulated in order to be presented in a useful way to the user.

#### (AAP) Big Idea 3: Algorithms and Programming

Programmers integrate algorithms and abstraction to create programs for creative purposes and to solve problems. Using multiple program statements in a specified order, making decisions, and repeating the same process multiple times are the building blocks of programs. Incorporating elements of abstraction, by breaking problems down into interacting pieces, each with their own purpose, makes writing complex programs easier. Programmers need to think algorithmically and use abstraction to define and interpret processes that are used in a program.

#### (CSN) Big Idea 4: Computing Systems and Networks

Computer systems and networks are used to transfer data. One of the largest and most commonly used networks is the Internet. Through a series of protocols, the Internet can be used to send and receive information and ideas throughout the world. Transferring and processing information can be slow when done on a single computer but leveraging multiple computers to do the work at the same time can significantly shorten the time it takes to complete tasks or solve problems.

#### (IOC) Big Idea 5: Impact of Computing

Computers and computing have revolutionized our lives. To use computing safely and responsibly, we need to be aware of privacy, security, and ethical issues. As programmers, we need to understand how our programs will be used and be responsible for the consequences. As computer users, we need to understand how to protect ourselves and our privacy when using a computer.

#### **AP CSP Curricular Requirements**

The Zulama AP CSP course supports each of the Big Ideas throughout the course content, collaborative and individual activities, and student reflections. The lesson activities support lesson content and provide opportunities for students to apply newly learned computer science concepts and skills. Thus, students are expected to complete all lesson activities listed in the Module Guide.

## **Module Guide**

## Module 1

## **Overview of Game Design and Computer Science Principles**

Timeframe: 3 Lessons, approximately 16 hours

	Module 1
Big Ideas	CRD, DAT, AAP, CSN, IOC
Computational Thinking Practices	CTP 1, 2, 5, 6
Lessons	Essential Questions
Lesson 1: Introduction Game Design CRD, CP1; CP5 Lesson 2: Data and Computational Thinking CSN; CTP 2, 6 Lesson 3: The Internet and Global Impact CSN; CTP 6	<ul> <li>Why are games a computing innovation?</li> <li>How is computational thinking used in game development?</li> <li>What are the positive and negative impacts of computers and the Internet?</li> </ul>
Computer Science / Game Design Topics	Coding Concepts
<ul> <li>Game design principles</li> <li>Working collaboratively in design teams</li> <li>Game mechanics</li> </ul>	
Questions	<ul> <li>Module 1 Quiz</li> <li>AP CSP Topic Formative Assessment</li> </ul>
Outcomes	<ul> <li>Read binary data</li> <li>Determine impact of computing</li> <li>Analyze data collection and reporting</li> <li>Know Internet characteristics</li> <li>Gauge Internet usage</li> <li>Evaluate cybersecurity issues</li> </ul>

Appendices page 2026 Pennwood Cyber Charter School

- **Lesson 1:** <u>IDEA Teams and Computing Innovations</u> Students pretend their IDEA Teams were the creators of Side Scroller, and discuss ways in which their collaboration might have made different choices. **CRD**
- **Lesson 2:** <u>Tell Time Using Binary Clocks</u> Students study the examples of binary clocks, read the Binary Data section in Lesson 1, convert the LED binary settings to decimal numbers so that they can confirm the times. Then they will also complete exercises to represent binary data using hexadecimal digits and make comparisons. **DAT**
- **Lesson 2:** Research the Impact of Games Students research and create a multimedia presentation that explores the impact of the global game design industry on today's society. The presentation should include statistics on how games are used for the greater good and careers in gaming as well as data of the student's choice. Sources should be cited and students should organize the data in a clear way. **IOC**
- **Lesson 2:** <u>Using Data for Information and Knowledge</u> Students describe an app they use frequently and write a short summary of its purpose. Students give an example of data that it collects and how it uses and presents the data back to the user. Students share with the class what information or knowledge is gained from the reporting. **DAT**
- Lesson 2: <u>Database Design Problems: The Card Game</u> Students consider how to best design a database for users. They consider search factors, variable, and how to simplify a database. Students consider the problem of scalability and develop a working blueprint that could be used to design a preliminary test site. **DAT**
- **Lesson 3:** <u>Compare Usage</u> Students compare their Internet usage to what statistics indicate and support their comparison with a graphic. **CSN**
- **Lesson 3:** <u>Unauthorized Access</u> Students research how unauthorized access to computing resources is gained and how they can stop or prevent that access. **CSN**
- **Lesson 3:** <u>Data and Security</u> Students essay on the benefits and dangers of collecting and storing personal data on online databases. **CSN**
- **Lesson 3:** <u>Crowdsourcing and Large-Scale Problem Solving</u> Students choose a crowdsourced research project online and explain how the people involved are participating in large-scale problem solving. **CSN**
- **Lesson 3:** Ethical Use of Computers Students access their favorite search engine and search for articles related to the harmful effects of computing.

- After reading and summarizing the article, students discuss ways to counteract the effect. **CSN**
- **Lesson 3:** <u>Bringing Equity</u> Students research equity and how it can be achieved in computing. Students write an essay summarizing their findings. **IOC**
- **Lesson 3:** <u>Think Beyond the Code</u> Students research an example of a computing innovation that ended up having consequences that the programmers probably didn't intend and decide how they might have done things differently. **CRN**
- **Lesson 3:** <u>Good and Bad</u> Students research a well-known computing innovation and discuss both the pros and the cons of that innovation for society. **CRD Lesson 3:** <u>Internet Usage</u> Students share their Internet usage habits, including
  - how much time is spent per day on the Internet and how it is spent. Students describe their use, such as playing games, accessing social media, using it for school-related projects, watching videos, or independently learning. **CSN**
- **Lesson 3:** <u>Internet Characteristics</u> Students work in pairs and choose a topic from the Digital Ocean article to investigate and prepare to teach their classmates in a short presentation. Topics chosen should include IP addresses, protocols, and packets. **CSN**
- **Lesson 3:** <u>Impact of the Internet</u> Students explain how the Internet has changed how individuals communicate and learn. **IOC**
- **Lesson 3:** Cybersecurity Students read a selection of articles pertaining to cybersecurity from looking at encryption to recent security breaches. They respond to a writing prompt and describe a current cybersecurity concern and consider ways to address the issue. **CSN**
- **Lesson 3:** Computer Vocabulary Word Art Students choose 15 words from their reading that describe computer science. They find a word cloud generator of their choice to complete the assignment. Wordle is one option, but others are available. Students then design a creative word art showcasing the computer science vocabulary found in Module 1. **CRD**
- **Lessons 1 3: Game Design Journal** Students respond to writing prompts to make entries to their online Game Design Journal that details how they engage in the idea design iterate process, code, and analyze digital artifacts process. **CRD, IOC**

 Article: An Introduction to Networking Terminology, Interfaces, and Protocols, online DigitalOcean https://www.digitalocean.com/community/tutorials/an-introduction-to-netwo rking-terminology-interfaces-and-protocols

• Article: Internet Protocol (http://searchunifiedcommunications.techtarget.com/definition/Internet-Prot ocol)

## Module 2

**Using GameMaker: Studio** 

Timeframe: 3 Lessons -- Approximately 4 hours

Module 2	
Big Ideas	CRD, DAT, CSN, IOC
Computational Thinking Practices	CTP 1, 3, 5, 6
Lessons	Essential Questions
<ul> <li>Lesson 4: Setting Up GameMaker Projects CRD; CTP 1</li> <li>Lesson 5: GameMaker: Studio Interface CSN; CTP 5, 6</li> <li>Lesson 6: Game Assets and GameMaker DAT, CSN; CTP 3</li> </ul>	<ul> <li>How is a GameMaker project stored?</li> <li>What does the GameMaker interface look like?</li> <li>How are assets and projects transferred?</li> </ul>
Computer Science / Game Design Topics	Coding Concepts
<ul><li>Downloading and installing software (GameMaker: Studio)</li><li>Project file structure</li></ul>	
Questions	<ul> <li>Module 2 Quiz</li> <li>AP CSP Topic Formative Assessment</li> </ul>
Outcomes	<ul> <li>Set up file structures</li> <li>Explain software releases and version numbers</li> <li>Navigate GameMaker: Studio interface</li> <li>Use file compression formats</li> </ul>

- **Lesson 6:** Storing, Securing, and Compressing Data Students work in small, collaborative groups to research and create a multimedia presentation on compressed file formats. Include historical information, how data is secured, and technical information. DAT
- **Lesson 6:** <u>Investigating Data Sets</u> Students work individually or in pairs to investigate metadata. Use file explorer and GameMaker project files to draw conclusions. **DAT**
- **Lesson 6:** Computing Innovations Through the first two modules students have been exploring how computing has evolved and had an impact. Now they will look beyond video games and research how computing, and shared access to resources, has impacted innovation in other fields. Students present their findings in the form of a digital poster. **CSN**
- **Lessons 4 6: Game Design Journal** Students respond to writing prompts to make entries to their online Game Design Journal that details how they engage in the idea design iterate process, code, and analyze digital artifacts process. **CRD, IOC**

• Instructional Video: How to Extract Zip Files

#### Module 3 Zulama Pinball

Timeframe: 5 Lessons -- Approximately 5 hours

	Module 3
Big Ideas	CRD, DAT, AAP, IOC
Computational Thinking Practices	CTP 1, 2, 3, 4, 5, 6
Lessons	Essential Questions
<ul> <li>Lesson 7: Game Design         Documents CRD; CTP 1, 5     </li> <li>Lesson 8: Parts of a GameMaker Game         DAT; CTP 3, 5     </li> </ul>	<ul> <li>What does a game document include?</li> <li>What are the main resources used in a GameMaker Studio project?</li> <li>What resources are used in a game level?</li> </ul>
Lesson 9: Backgrounds and Rooms CRD, DAT; CTP 2, 3 Lesson 10: Adding Code AAP; CTP 2, 3 Lesson 11: Complete Navigation Workshop CRD, DAT, CSN; CTP 1, 4, 6	<ul> <li>How do objects react to events?</li> <li>How is room navigation handled?</li> </ul>

Appendices page 2030 Pennwood Cyber Charter School

Computer Science / Game Design Topics	Coding Concepts
<ul> <li>One page design</li> <li>Game document</li> <li>Pair programming</li> <li>Create GameMaker project</li> <li>Sprites</li> <li>Objects</li> <li>instance</li> </ul>	
Questions	<ul> <li>Module 3 Quiz</li> <li>AP CSP Topic Formative Assessment</li> </ul>
Outcomes	<ul> <li>Manipulate the GameMaker interface</li> <li>Add rooms and backgrounds</li> <li>Determine game flow</li> <li>Apply GML scripting skills, including:</li> <li>Create events and collisions</li> <li>Add functions and variables</li> </ul>

**Lesson 8:** <u>Designing New Playing Pieces</u> Students work as a design team to add two new playing pieces to the game. Design team may be pair programmers or two pairs may form one team. This activity will begin here and will finish at the end of Zulama Pinball, and includes design of game art, application of game mechanics, and adding objects to the computer game environment. **CRD** 

**Lesson 10:** <u>Upload Completed Project File</u> When students have finished all the tasks described in the lessons and tested that their game works, students export their GameMaker project and upload the GMZ file for review. CRD, **DAT** 

- **Lesson 10:** <u>Levels of Abstraction</u> Students respond to a writing prompt to discuss the multiple levels of abstraction they have seen from the game document to running their code (highest to lowest rule set, pseudocode, GML code, compiled code, executed code.) **AAP**
- **Lesson 11:** <u>Upload Navigation Workshop</u> Students export and upload their completed Navigation Workshop GMZ file. This Workshop includes making independent changes to the game to assess module outcomes **CRD**, **DAT**
- **Lessons 7 11: Game Design Journal** Students respond to writing prompts to make entries to their online Game Design Journal that details how they engage in the idea design iterate process, code, and analyze digital artifacts process. **CRD, IOC**

Instructional Video: Creating a Sprite
 Instructional Video: Creating an Object

• Instructional Video: Creating a Background

• Instructional Video: Creating a Room / Adding Objects

• Instructional Video: Writing Code

• Instructional Video: Exporting GMZ Files

#### Module 4

#### Making the Game Work

Timeframe: 4 Lessons -- Approximately 6 hours

Module 4	
Big Ideas	CRD, DAT, AAP, IOC
Computational Thinking Practices	CTP 1, 2, 3, 4
Lessons	Essential Questions
<ul> <li>Lesson 12: Controlling the Paddle AAP; CTP 1, 2, 3, 4</li> <li>Lesson 13: Using Mouse input AAP; CTP 1, 2, 3, 4</li> </ul>	<ul> <li>How is the paddle movement controlled by the player?</li> <li>What events are generated by mouse clicks?</li> </ul>
<ul> <li>Lesson 14: Collision with Ball AAP; CTP 1, 2, 3, 4</li> <li>Lesson 15: Adding More Assets CRD, DAT; CTP 1, 2, 3, 4</li> </ul>	<ul> <li>How are program errors interpreted and corrected?</li> <li>Why is the User Interface important?</li> </ul>
Computer Science / Game Design Topics	Coding Concepts

Appendices page 2032 Pennwood Cyber Charter School

Keyboard events Mouse events Randomization Collision handling Debugging User interface Draw events Font resource	<ul> <li>Conditional statement</li> <li>Random number functions</li> <li>Boolean variables</li> <li>Variable scope</li> <li>Global variables</li> <li>Constants</li> <li>"with" statement</li> <li>Interpreting error messages</li> <li>Draw functions</li> </ul>
Questions	<ul> <li>Module 4 Quiz</li> <li>AP CSP Topic Formative Assessment</li> </ul>
utcomes	<ul> <li>Apply GML scripting skills</li> <li>Use conditional statements, random number functions, variables, constants, and variable scope</li> <li>Dynamically allocate game resources</li> </ul>

**Lesson 13:** <u>Practice with if Statements</u> Students complete an if statement worksheet to assess their ability to trace logical programming statements. **AAP** 

Lesson 14: <u>GameMaker Tips</u> Students respond to the writing prompt by posting to an online discussion thread: What GameMaker shortcuts have you discovered on your own that you find helpful? What web searches have you done and what online resources have helped you? How did you verify their credibility? Students then respond to a partner's suggestion after trying it out or using the online reference. **CRD, CSN** 

- **Lesson 14:** <u>Debugging Exercise</u> Students work as pair programmers to correct all errors in given project. They then export and upload it to the Zulama Learning and Content Management System. **AAP**
- **Lesson 15:** <u>Is the Game Fair?</u> Students provide written answers to questions posed to address game design, iteration, and game balance. **CRD**
- Lesson 15: Module 4 Guided Lessons Completed When students have finished all the tasks described in the lessons, tested, and iterated their game so they know it works correctly, students export their GameMaker project and upload the GMZ file to the Zulama Learning and Content Management System for review. CRD, DAT
- **Lessons 12 15: Game Design Journal** Students respond to writing prompts to make entries to their online Game Design Journal that details how they engage in the idea design iterate process, code, and analyze digital artifacts process. **CRD, IOC**

• Instructional Video: Using Keyboard Events

• Instructional Video: Adding Code to Respond to Mouse Input

• Instructional Video: Adding a Rule

• Instructional Video: Making Objects Operational

• Instructional Video: Drawing the Score

## Module 5

## **Finishing Zulama Pinball**

Timeframe: 5 Lessons -- Approximately 8 hours

Module 5	
Big Ideas	CRD, DAT, AAP, IOC
Computational Thinking Practices	CTP 1, 2, 3, 4
Lessons	Essential Questions
<ul> <li>Lesson 16: Add Game Balance</li></ul>	<ul> <li>What is game balance and how can it be achieved in your game?</li> <li>How can variables be used to control game flow?</li> <li>How is winning or losing determined and communicated to the player?</li> <li>What needs to be considered to build a second level?</li> <li>What does playtesting involve?</li> <li>Why is playtesting a crucial step in game design?</li> </ul>
Computer Science / Game Design Topics	Coding Concepts
<ul> <li>Game balance</li> <li>Dynamic resource allocation</li> <li>Building and testing game feedback</li> <li>Game development cycle</li> <li>Working collaboratively in a design team</li> <li>Game design principles</li> <li>Playtest</li> </ul>	<ul> <li>Conditional statement (if-else)</li> <li>Increment and decrement operators</li> <li>Compound if statement</li> <li>Global variables</li> <li>Develop and test</li> <li>Create application executable</li> </ul>
Questions	<ul> <li>Module 5 Quiz</li> <li>AP CSP Topic Formative Assessment</li> </ul>
Outcomes	Apply GML scripting skills

Appendices page 2035 Pennwood Cyber Charter School

	<ul> <li>Use compound conditional statements, increment and decrement operators, and variable scope</li> <li>Dynamically allocate game resources</li> <li>Engage in the iterative process to design a second game level</li> <li>Playtest a game</li> </ul>
--	---

- **Lesson 17:** Add More Balance Students choose one of several brainstormed ideas from Lesson 15 and implement it in the game. Students consider choosing an original idea that will make the game more interesting but also take into account a change that can be successfully implemented with the deadlines set by the teacher. The explanation and file are uploaded for teacher review. **AAP**
- **Lesson 18:** <u>Guided Lessons Completed</u> After finishing all tasks directed in the lessons, testing the game, and iterating as needed so the game works, export their GameMaker project. Students upload the GMZ file for teacher review. **CRD, DAT**
- **Lesson 19:** <u>Designing a Level Workshop</u> Before making the changes in GameMaker, planning needs to be done. Students document their plans to implement an original level by completing a one page design document as well as adding to the game document used throughout Zulama Pinball.
  - Updating the game document includes writing pseudocode. Students upload their completed planning documents for teacher review. **CRD, DAT**
- **Lesson 19:** New Level GMZ Workshop Once students have coded and tested their design changes, they export and upload their completed GMZ GameMaker project file for teacher review. CRD, DAT
- **Lesson 20:** Evaluate the Playtest Students work in their design teams to evaluate the test results and brainstorm ideas for changes to games to make them more playable and fun. Students then provide written responses to writing prompts. **CRD**
- **Lessons 16 20:** Game Design Journal Students respond to writing prompts to make entries to their online Game Design Journal that details how they engage in the idea design iterate process, code, and analyze digital artifacts process. **CRD, IOC**

• Instructional Video: Adding Player Lives

• Instructional Video: Adding a Bonus Feature, part 1

• Instructional Video: Adding a Bonus Feature, part 2

• Instructional Video: Win Conditions and Feedback

• Instructional Video: Making the Play Again Button Functional

#### **Module 6 Ball**

#### **Bouncer**

Timeframe: 4 Lessons -- Approximately 6 hours

Module 6	
Big Ideas	CRD, DAT, AAP, IOC
Computational Thinking Practices	CTP 1, 2, 3, 4
Lessons	Essential Questions
<ul> <li>Lesson 21: Rooms and Backgrounds AAP; CTP 1, 2, 3, 4</li> <li>Lesson 22: Ball and Wall Objects AAP; CTP 1, 2, 3, 4</li> <li>Lesson 23: Adding the Goal AAP; CTP 1, 2, 3, 4</li> <li>Lesson 24: Create Playing Pieces Workshop CRD, DAT; CTP 1, 2, 3, 4</li> </ul>	<ul> <li>What is required to set up game navigation when you begin a new game?</li> <li>How can instances be added easily to a room?</li> <li>How is the game won?</li> <li>What steps are required to set up the game's playing pieces?</li> </ul>
Computer Science / Game Design Topics	Coding Concepts
<ul><li>Pair Programming</li><li>Create GameMaker project</li><li>Set up game flow</li></ul>	<ul><li>Using functions</li><li>Random number functions</li></ul>

Appendices page 2037 Pennwood Cyber Charter School

<ul> <li>Level design</li> <li>Object instances</li> <li>Randomization</li> <li>Create game objects</li> <li>Project organization</li> </ul>	
Questions	<ul><li>Module 6 Quiz</li><li>AP CSP Topic Formative Assessment</li></ul>
Outcomes	<ul> <li>Apply GML scripting skills</li> <li>Set up game flow in the Ball Bouncer game</li> <li>Use random number functions</li> <li>Use create events and collision events to control game flow</li> </ul>

Lesson 21: <u>Ball Bouncer Room Navigation</u> Students set up the room navigation for their game according to the game document and upload their GMZ file for teacher review. CRD, AAP, DAT Lesson 23: <u>Guided Lessons Completed</u> Student files show that room navigation, including moving to the end room when the ball hits the goal is complete. Students export and upload their tested

game GMZ file for teacher review. CRD, DAT

**Lesson 24:** <u>Create Playing Pieces Workshop</u> Game flow should begin at the start screen and move to the main level when the play button is clicked. All five playing piece objects should be created and placed in the main room at the appropriate location in the bin area. Once students have completed the lessons and successfully playtested their game, they need to export the GMZ file and upload it for teacher review. **CRD, AAP, DAT** 

**Lessons 21 - 24: Game Design Journal** Students respond to writing prompts to make entries to their online Game Design Journal that details how they engage in the idea - design - iterate process, code, and analyze digital artifacts process. **CRD, IOC** 

#### **Instructional Resources**

Instructional Video: Creating More Sprites

• Instructional Video: Coding Blocks

• Instructional Video: Incorporating the Goal

## Module 7

## **Ball Bouncer Game Mechanics**

Timeframe: 6 Lessons -- Approximately 10 hours

Module 7	
Big Ideas	CRD, DAT, AAP, IOC
Computational Thinking Practices	CTP 1, 2, 3, 4
Lessons	Essential Questions
<ul> <li>Lesson 25: Placing the Playing Pieces AAP; CTP 1, 2, 3, 4</li> <li>Lesson 26: Taking a Closer Look AAP; CTP 1, 2, 3, 4</li> <li>Lesson 27: User Interface AAP, DAT; CTP 1, 2, 3, 4</li> <li>Lesson 28: Global Variables AAP; CTP 2, 3, 4</li> <li>Lesson 29: Adding a Power Up AAP; CTP 2, 3, 4</li> <li>Lesson 30: On Your Own Workshop CRD, DAT, IOC; CTP 1, 2, 3, 4</li> </ul>	<ul> <li>How can Boolean variables be used to control dragging and dropping playing pieces?</li> <li>What fundamentals are used throughout games programming?</li> <li>What game elements need to be added to complete level design?</li> <li>Why is a global variable needed?</li> <li>What is the purpose of a power-up?</li> <li>How does a power-up add interest to the game?</li> <li>What should you be evaluating when playtesting your game?</li> </ul>
Computer Science / Game Design Topics	Coding Concepts
<ul> <li>Program logic</li> <li>Boolean logic</li> <li>Truth tables</li> <li>User Interface</li> <li>Game development cycle</li> </ul>	<ul> <li>Boolean variables</li> <li>Compound conditionals</li> <li>Coordinate math</li> <li>Variable scope</li> <li>Variable types</li> <li>Constants</li> <li>Objects and instances</li> </ul>

Appendices page 2039 Pennwood Cyber Charter School

	<ul><li>Nested if statements</li><li>Logical operators</li><li>Dot notation</li></ul>
Questions	<ul> <li>Module 7 Quiz</li> <li>AP CSP Topic Formative Assessment</li> </ul>
Outcomes	<ul> <li>Apply GML Scripting skills</li> <li>Use Boolean variables,         Boolean logic, constants, and         nested if statements</li> <li>Make decisions using         computations based on         instance's coordinates</li> <li>Engage in the iterative process to test         and debug the game</li> </ul>

- **Lesson 25:** <u>The Rest of Pieces</u> Students modify other playing pieces using the diamond object as a guide. Students playtest, address errors as needed, and upload the GMZ file for teacher review. **AAP**
- **Lesson 26:** <u>Variables and Conditionals Practice</u> Students provide written answers to a series of questions to show their code tracing prowess. They describe the error or determine the outcome when the code shown is run. **AAP**
- **Lesson 28:** Relational Operators Students evaluate (and write) expressions using relational operators. AAP
- **Lesson 28:** <u>Instances and Variables</u> Students read a scenario that analyzes instance vs. global variables. They then create a graphic organizer or multimedia presentation to demonstrate their understanding. Their visual, in turn, can be shared and discussed with other students to lead to deeper understanding. **AAP**
- **Lesson 28:** <u>Progress Check</u> Students evaluate game elements and game mechanics that they feel would improve the game. Students identify these elements and provide a written plan for iterations. **CRD**
- **Lesson 29:** How to Prevent Paddle from Rotating into Wall This is an online discussion question that has students suggesting ways to prevent the paddle in the game from rotating into one of the four walls. This activity gives

- students an opportunity to brainstorm and sort through possible iterations for game improvement. **AAP**
- **Lesson 29:** Module 7 Guided Lessons Completed Once all Module 7 game mechanics have been coded and tested, students export and upload their completed GMZ file for teacher review. CRD, DAT
- **Lesson 30:** Make It Your Own Students complete the "Finish the Game" tasks.
  - Then they choose at least three enhancements from their Game Design Journal or the Make it Your Own section to implement. **CRD**
- **Lesson 30:** <u>Is it Ready for Prime Time?</u> Through a writing prompt, students evaluate their game and consider changes that would be effective to reach a wider audience and be required for widespread distribution. **CRD**
- **Lessons 25 30: Game Design Journal** Students respond to writing prompts to make entries to their online Game Design Journal that details how they engage in the idea design iterate process, code, and analyze digital artifacts process. **CRD, IOC**

- Instructional Video: The Drag Function, part 1
- Instructional Video: The Drag Function, part 2
- Instructional Video: Creating User Interface
- Instructional Video: The Goal Top
- Instructional Video: Limiting Player Cards
- Instructional Video: Adding Power-Ups
- Instructional Video: Fixing the Bug

## Module 8

## **Matching Game**

Timeframe: 3 Lessons -- Approximately 5 hours

Module 8	
Big Ideas	CRD, DAT, AAP, CSN, IOC
Computational Thinking Practices	CTP 1, 2, 3, 4
Lessons	Essential Questions
<ul> <li>Lesson 31: Matching Game Setup AAP; CTP 1, 2, 3, 4</li> <li>Lesson 32: Card Sprites CRD, AAP; CTP 2, 3, 4</li> <li>Lesson 33: Controller Object AAP; CTP 2, 3, 4</li> </ul>	<ul> <li>How is a simple, matching card game programmed?</li> <li>What is the purpose of one sprite containing multiple images?</li> <li>What is the purpose of the controller object?</li> </ul>
Computer Science / Game Design Topics	Coding Concepts
<ul> <li>Pair Programming</li> <li>Set up game flow</li> <li>Game timing</li> <li>Controller object</li> </ul>	<ul><li>Using alarms</li><li>Using functions</li><li>Coordinate math</li></ul>
Questions	<ul> <li>Module 8 Quiz</li> <li>AP CSP Topic Formative Assessment</li> </ul>
Outcomes	<ul> <li>Apply GML Scripting skills</li> <li>Manage variables at an advanced level</li> <li>Use the controller object</li> <li>Program alarms and timers, and turning cards over by changing sprites</li> </ul>

- **Lesson 33:** Research Simulation Games Activity Video games simulations are widespread. Students research examples of how video game simulations are used for training purposes in and create a multimedia presentation to report their findings. CRD, CSN, IOC
- **Lesson 33:** Module 8 Guided Lessons Completed Students upload their fully playtested Matching game GMZ file for teacher review. CRD, DAT
- **Lessons 31 33: Game Design Journal** Students respond to writing prompts to make entries to their online Game Design Journal that details how they engage in the idea design iterate process, code, and analyze digital artifacts process. **CRD, IOC**

Instructional Video: Creating the Card Sprite
 Instructional Video: Creating the Alarms

#### Module 9

#### **Finding Matches**

Timeframe: 5 Lessons -- Approximately 9 hours Explore - Impact of Computing Innovation - 8 hours

Module 9	
Big Ideas	CRD, DAT, AAP, CSN, IOC
Computational Thinking Practices	CTP 1, 2, 3, 4, 5, 6
Computing Innovations	Explore - Impact of Computing Innovations
Lessons	Essential Questions
<ul> <li>Lesson 34: Managing Variables         AAP, CTP 2, 3, 4     </li> <li>Lesson 35: Game Timing AAP; CTP 2, 3, 4</li> <li>Lesson 36: Randomizing the Game         AAP; CTP 2, 3, 4     </li> </ul>	<ul> <li>How are matches determined and what role do variables play in controlling the game?</li> <li>How are alarms used to handle game timing?</li> <li>How can playability be improved?</li> </ul>
<ul> <li>Lesson 37: Game Improvements         CRD, IOC; CTP 1, 4</li> <li>Lesson 38: Level Up AAP; CTP 2, 3, 4</li> </ul>	<ul> <li>What improvements can be made to the matching game?</li> <li>What changes are necessary to change a sprite's subimages?</li> </ul>

Computer Science / Game Design Topics	Coding Concepts
<ul><li>Flowcharts</li><li>Pseudocode</li></ul>	<ul><li>Conditionals</li><li>Global variables</li></ul>
Questions	<ul> <li>Module 9 Quiz</li> <li>AP CSP Topic Formative Assessment</li> </ul>
Outcomes	<ul> <li>Apply GML scripting skills</li> <li>Use conditionals and modulus operator</li> <li>Apply randomization to the game</li> <li>Use alarms</li> <li>Engage in the iterative process to test and debug the game</li> <li>Gain a deep understanding of computer innovations</li> </ul>

- **Lesson 36:** Module 9 Guided Lessons Completed Students upload their fully playtested Matching game GMZ file for teacher review. This represents the game version following completion of the guided lessons. CRD, DAT, CSN
- **Lesson 37:** <u>Finish the Basic Game Workshop</u> Students upload their completed Matching Game GMZ file. Teacher review includes whether the UI is properly set up, gives appropriate feedback, and handles special test cases appropriately. **CRD, DAT, CSN**
- **Lesson 38:** Edit Sprites Workshop Students add new images to their Matching game. Students access Creative Commons images to understand how computing has enabled broader access. Images should be resized and edited so that the game has a unique theme. Once inserted into the game and

playtested students should upload their GMZ file for teacher review. CRD, DAT, CSN

**Lessons 34 - 38:** Game Design Journal Students respond to writing prompts to make entries to their online Game Design Journal that details how they engage in the idea - design - iterate process, code, and analyze digital artifacts process. **CRD, IOC** 

At end of Module 9: <u>Explore - Impact of Computing Innovations</u> Students complete the Computing Innovations activities utilizing 8 hours of class time. Students should use the AP rubric and task guidelines to ensure all requirements are met. **CSN, IOC; CTP 1, 5, 6** 

#### **Instructional Resources**

Instructional Video: Checking for Matches
 Instructional Video: Fixing the Win Condition
 Instructional Video: Random Card Placement

#### Module 10

## 31 Game Setup

Timeframe: 6 Lessons -- Approximately 8 hours

Module 10	
Big Ideas	CRD, DAT, AAP, IOC
Computational Thinking Practices	CTP 1, 2, 3, 4
Lessons	Essential Questions
<ul> <li>Lesson 39: Set Up Playing Board CRD, DAT; CTP 1, 2, 3, 4</li> <li>Lesson 40: For Loop AAP; CTP 2, 3, 4</li> <li>Lesson 41: Arrays AAP; CTP 2, 3, 4</li> <li>Lesson 42: Managing the Deck AAP; 1, 2, 3, 4</li> </ul>	<ul> <li>What is required to set up game navigation when a game is started?</li> <li>How can lines of code be repeated?</li> <li>How are arrays used in programming?</li> <li>How is the deck of cards represented virtually?</li> <li>What programming is necessary to be able to score the cards?</li> </ul>
<ul> <li>Lesson 43: More Scripts AAP; CTP 1, 2, 3</li> <li>Lesson 44: Deal the Hand Workshop DAT; CTP 1</li> </ul>	What planning and programming is necessary to set up the cards?

Computer Science / Game Design Topics	Coding Concepts
<ul> <li>Pair Programming</li> <li>Set up game flow</li> <li>Loops</li> <li>Arrays</li> <li>Writing algorithms</li> <li>Implement game mechanics</li> </ul>	<ul> <li>For loops</li> <li>Arrays</li> <li>Scripts</li> <li>Nested for loops</li> <li>Scripts (user-defined functions)</li> <li>Alarms</li> </ul>
Questions	<ul> <li>Module 10 Quiz</li> <li>AP CSP Topic Formative Assessment</li> </ul>
Outcomes	<ul> <li>Apply GML scripting skills</li> <li>Demonstrate game flow in the Project 31 game</li> <li>Describe data structures</li> <li>Create one and two dimensional arrays, and loops</li> <li>Identify variable scope</li> <li>Use debug messages to test data structure</li> <li>Consider additional detail on for loops and array indexing</li> <li>Create and use GML scripts</li> <li>Passing arguments</li> <li>Returning values</li> </ul>

**Lesson 39:** Playing 31 This activity provides an opportunity for students to post and respond to a discussion thread explaining their analysis of game mechanics used in the traditional card game 31 and how they will be applied in creating a digital version of the game. **CRD, IOC** 

- **Lesson 41:** Manipulating Arrays In this assignment students have the opportunity to use array notation to access cells of tables and to manipulate the contents. AAP
- **Lesson 43:** Module 10 Guided Lessons Completed After thoroughly playtesting their game, students upload their GMZ file for teacher review. Functionality includes setup of room navigations and one card used for testing. CRD, DAT
- **Lesson 44:** <u>Deal the Hand</u> Students have written code to set up room navigation, build a virtual deck, create objects for the player and opponent's hands, and dealt the first card hand. After thoroughly playtesting their game, students export and upload their GMZ file for teacher review. **AAP, DAT**
- **Lessons 39 44: Game Design Journal** Students respond to writing prompts to make entries to their online Game Design Journal that details how they engage in the idea design iterate process, code, and analyze digital artifacts process. **CRD, IOC**

• Instructional Video: How to Play Scat: Card Games

• Instructional Video: Setting the Sprites

• Instructional Video: For Loop

Instructional Video: Nested For Loop
 Instructional Video: Building the Deck
 Instructional Video: Swapping Two Cards

• Instructional Video: Dealing the Cards

## Module 11

## Build 31

Timeframe: 4 Lessons -- Approximately 8 hours

	Module 11
Big Ideas	CRD, DAT, AAP, IOC
Computational Thinking Practices	CTP 1, 2, 3, 4
Lessons	Essential Questions
<ul> <li>Lesson 45: The Player's Turn AAP; CTP 2, 3, 4</li> <li>Lesson 46: The Computer's Turn AAP; CTP 2, 3, 4</li> <li>Lesson 47: End the Hand AAP; CTP 2, 3, 4</li> <li>Lesson 48: Finish the Game DAT; CTP 1</li> </ul>	<ul> <li>What steps are required to code the player's turn?</li> <li>What steps are necessary for the computer to take a turn?</li> <li>What needs to be done to end a hand?</li> <li>What improvements can be made to 31?</li> </ul>
Computer Science / Game Design Topics	Coding Concepts
<ul> <li>Implement game mechanics</li> <li>Implement game feedback</li> <li>Build and test feedback and game timing</li> </ul>	<ul> <li>Scripts (user-defined functions)</li> <li>Alarms</li> <li>Develop and test</li> </ul>
Questions	<ul> <li>Module 11 Quiz</li> <li>AP CSP Topic Formative Assessment</li> </ul>
Outcomes	<ul> <li>Utilize key elements of a game design document</li> <li>Implement the game development process</li> <li>Apply gained knowledge to build the Project 31 game</li> </ul>
	<ul> <li>Apply iteration to debug the Project 31 game</li> </ul>

Appendices page 2048 Pennwood Cyber Charter School

**Lesson 48:** 31 Game Project Students have created a digital game version of the card game 31. Once tested and all errors have been corrected, students export their project and upload the compressed file for teacher review.

Students also describe the original change made to the game. CRD, DAT, AAP

**Lesson 48:** 31 Game Development Process Reflection Students write an essay about the process they followed to write the card game 31. Their essay should include detailed explanation of a section of their code, an overview of their project plan, and challenges during testing and how they overcame them. **CRD, IOC** 

**Lessons 45 - 48: Game Design Journal** Students respond to writing prompts to make entries to their online Game Design Journal that details how they engage in the idea - design - iterate process, code, and analyze digital artifacts process. **CRD, IOC** 

#### **Instructional Resources**

• Instructional Video: Discard

• Instructional Video: Selecting a Card from Discard

#### Module 12

## **Sky is Falling Cut Scene**

Timeframe: 5 Lessons -- Approximately 7 hours

Module 12	
Big Ideas	CRD, DAT, AAP, IOC
Computational Thinking Practices	CTP 1, 2, 3, 4
Lessons	Essential Questions
<ul> <li>Lesson 49: Evolution of Transmedia World IOC; CTP 1</li> <li>Lesson 50: Begin the Cut Scene CRD, AAP; CTP 1, 2, 3, 4</li> <li>Lesson 51: Construct the Timeline CRD, AAP; CTP 1, 2</li> <li>Lesson 52: Finish the Cut Scene, AAP; CTP 2, 3, 4,</li> <li>Lesson 53: Cut Scene Workshop, DAT, IOC; CTP 1</li> </ul>	<ul> <li>How is game navigation set up?</li> <li>How is a timeline used in GameMaker?</li> <li>What is a persistent object and when should it be used?</li> <li>How can horizontal and vertical speed be controlled and used?</li> <li>What can be done to make transitions smoother?</li> </ul>

Appendices page 2049 Pennwood Cyber Charter School

Computer Science / Game Design Topics	Coding Concepts
<ul> <li>Set up game flow</li> <li>Use animation</li> <li>Use timelines</li> <li>Image alpha levels</li> <li>Persistent objects</li> </ul>	<ul><li>Functions</li><li>Alarms</li><li>Coordinate math</li></ul>
Questions	<ul> <li>Module 12 Quiz</li> <li>AP CSP Topic Formative Assessment</li> </ul>
Outcomes	<ul> <li>Use cut scenes</li> <li>Use timelines to control when something happens</li> <li>Use animation</li> <li>Use layers and depth</li> </ul>

- **Lesson 50:** Make Lightning Move with Cloud Students revisit the cut scene previously coded where lightning only strikes when a cloud is not moving. Students change this so that the lightning object moves with the cloud object. **CRD, AAP**
- **Lesson 53:** Refine the Cut Scene Once students complete the cut scene they evaluate the timing and add additional steps to improve the scene. After coding and testing, they export and upload their The Sky is Falling GMZ file for teacher review. CRD, AAP, DAT
- **Lessons 49 53: Game Design Journal** Students respond to writing prompts to make entries to their online Game Design Journal that details how they

engage in the idea - design - iterate process, code, and analyze digital artifacts process. **CRD, IOC** 

## Module 13

## **Sky is Falling Game**

Timeframe: 5 Lessons -- Approximately 4 hours

Module 13	
Big Ideas	CRD, DAT, AAP, IOC
Computational Thinking Practices	CTP 1, 2, 3, 4
Lessons	Essential Questions
<ul> <li>Lesson 54: Animals Fall AAP; CTP 2, 3, 4</li> <li>Lesson 55: Saving the Animals     AAP; CTP 1, 2, 3, 4</li> <li>Lesson 56: Game Timers and UI     AAP; CTP 1, 2 3, 4</li> <li>Lesson 57: Restarting the Game     AAP: 2, 3, 4; CTP 2, 3, 4</li> </ul>	<ul> <li>How are the animal's game mechanics implemented in code?</li> <li>How is code used to move two instances in sync?</li> <li>How can feedback be added to the game to let the players know how they are doing?</li> <li>What variables must be reset when the game is restarted?</li> </ul>
Computer Science / Game Design Topics	Coding Concepts
<ul> <li>Implement game mechanics</li> <li>Controlling spawning using percentages</li> <li>Build and test feedback and game timing</li> </ul>	<ul> <li>Using dot notation</li> <li>Alarms</li> <li>Conditionals</li> <li>Functions</li> <li>Switch statements</li> <li>Develop and test</li> </ul>
Questions	<ul> <li>Module 13 Quiz</li> <li>AP CSP Topic Formative Assessment</li> </ul>
Outcomes	Use conditionals at an advanced level

Appendices page 2051

<ul> <li>Move one instance with another instance</li> <li>Create effective User Interface</li> </ul>	
--	--

- **Lesson 55:** <u>Captured Animals Investigation</u> Students analyze the code that controls an animal's collision with the boat. They make suggested changes to the conditional checks to investigate the effect on playing the game. Through a writing prompt, they report their findings. **CRD, DAT**
- **Lesson 55:** <u>Compare Search Algorithms</u> Students compare linear and binary searches. The algorithms, conditions for use, and efficiency comparisons are investigated. **DAT**
- **Lesson 56:** Can the Computer Solve all Problems? Computational problems, that is. Students use given sources, or research their own, to investigate what it means to solve a problem in reasonable time, to be unsolvable, or to be undecidable. **IOC**
- **Lesson 57:** Play Again Workshop Once all functionality is working from following the guided lessons, students add code to restart the game. After testing they export and upload their The Sky is Falling GMZ file for teacher review. **CRD, AAP, DAT**
- **Lessons 54 57: Game Design Journal** Students respond to writing prompts to make entries to their online Game Design Journal that details how they engage in the idea design iterate process, code, and analyze digital artifacts process. **CRD, IOC**

## Module 14

#### **Sky is Falling Enhancements**

Timeframe: 5 Lessons -- Approximately 8 hours

Module 14	
Big Ideas	CRD, DAT, AAP, IOC
Computational Thinking Practices	CTP 1, 2, 3, 4, 5
Computing Innovations	
Lessons	Essential Questions

Appendices page 2052 Pennwood Cyber Charter School

ullet	<b>Lesson 58: Lives and Capacity Bar</b> AAP;
	CTP 1, 2, 3, 4
_	Laccon FO. Doot Control AAD, CTD 2

- Lesson 59: Boat Control AAP; CTP 2, 3, 4
- Lesson 60: Creating Paths AAP; CTP 2, 3, 4
- Lesson 61: Sound AAP, DAT; CTP 1, 2, 3, 4, 5
- Lesson 62: Create an Original Cut Scene CRD, AAP; CTP 1, 2, 3, 4
- How can online communities and coding forums help when adding new features?
- What factors should affect the speed of the boat?
- How are path resources used?
- How is sound added to a game?
- What steps are necessary to create an original cut scene?

Computer Science / Game Design Topics	Coding Concepts
<ul><li>Use coding forums</li><li>Use sound in a game</li><li>Game Development cycle</li></ul>	<ul><li>Sound functions</li><li>Control animations</li><li>Develop and test</li></ul>
Questions	<ul> <li>Module 14 Quiz</li> <li>AP CSP Topic Formative Assessment</li> </ul>
Outcomes	<ul> <li>Use sound in a game</li> <li>Use paths in a game</li> <li>Engage in the iterative process to design an original cut scene</li> </ul>

## **Instructional Activities:**

**Lesson 59:** <u>Improving Boat Control</u> Students make improvements to how the boat's movement and height is controlled and report on the effect of their changes. **CRD, AAP** 

**Lesson 61:** <u>Game Sound Research</u> Students research different sound file formats and create a digital presentation to report what they have learned. **IOC** 

**Lesson 61:** Sound in Games You Play This activity provides an opportunity for students to post and respond to a discussion thread talking about how sound is used in games they play. **IOC** 

Appendices page 2053 Pennwood Cyber Charter School

- **Lesson 61:** The Sky is Falling Completed Game Students upload their completed Sky is Falling Game GMZ file. Teacher review includes whether the game mechanics work properly, the sun moves along a path, and sound is used effectively in the game. **CRD, AAP, DAT**
- **Lesson 62:** Original Cut Scene Design Document Students document their plans to design and code an original level by completing a one page design document. Students upload their completed planning document for teacher review. CRD, DAT
- **Lesson 62:** <u>Create Original Cut Scene</u> Once students have coded and tested their cut scene they export and upload their completed GMZ GameMaker project file for teacher review. **AAP, DAT**
- **Lesson 62:** <u>Cut Scene Development Reflection</u> Students will write an essay about the process they followed to write the original cut scene. Their essay should include detailed explanation of a section of their code and challenges during testing and how they overcame them. **CRD, IOC**
- **Lessons 58 62: Game Design Journal** Students respond to writing prompts to make entries to their online Game Design Journal that details how they engage in the idea design iterate process, code, and analyze digital artifacts process. **CRD, IOC**

#### Module 15

#### **Create Performance Task**

Timeframe: 1 Lesson -- 12 hours

Create - Applications from Ideas Performance Task (12 hours class time)

М	odule 15
Big Ideas	CRD, DAT, AAP, CSN, IOC
Computational Thinking Practices	CTP 1, 2, 3, 4,5, 6
Computing Innovations	Create Performance Task
Lessons	Essential Questions
<ul> <li>Lesson 63: Overview of Create</li> <li>Performance Task CRD, DAT, AAP; CTP 1,</li> <li>2, 3, 4, 5, 6</li> </ul>	<ul> <li>What are the guidelines for the Performance Task: Create - Applications from Ideas?</li> </ul>
Computer Science / Game Design Topics	Coding Concepts
Iterate through the Software development cycle to create a digital product	Summative/authentic assessment of coding concepts and skills learned during the course
Questions	AP CSP Topic Formative Assessment

Outcomes	<ul> <li>Use design skills acquired in the course</li> <li>Use coding concepts and skills acquired in the course</li> </ul>
	Create a digital artifact

#### **Instructional Activities:**

- **Lesson 63:** <u>Create Applications from Ideas Performance Task</u> Students complete the throughcourse assessment utilizing at least 12 hours of class time. Students should use the AP rubric and task guidelines to ensure all requirements are met. **CRD, DAT, AAP**
- **Lesson 63: Create Performance Task Game Design Journal** Students write and essay detailing their notes on the process as shown in their Game Design Journals. **CRD, IOC**
- **Lesson 63: Create Performance Task Review** Students upload their completed game for teacher review. **CSN, IOC**
- **Lesson 63: Game Design Journal** Students respond to writing prompts to make entries to their online Game Design Journal that details how they engage in the idea design iterate process, code, and analyze digital artifacts process. **CRD, IOC**

## Module 16 (post APCSP exam)

## **Game Design Digital Portfolio Website**

Timeframe: 2 Lessons -- Approximately 16 hours

M	odule 16
Big Ideas	CRD, CSN, IOC
Computational Thinking Practices	CTP 1, 5, 6
Lessons	Essential Questions
<ul> <li>Lesson 64: Digital Portfolio Website CRD, CSN, IOC; CTP 1, 5, 6</li> <li>Lesson 65: Postmortem IOC; CTP 6</li> </ul>	<ul> <li>What does a professional digital portfolio website look like?</li> <li>How can I showcase my computer science skills and talents?</li> </ul>
Computer Science / Game Design Topics	Coding Concepts
Build and Iterate a Digital Portfolio Website	
Assessments	none
Outcomes	<ul><li>Develop a digital portfolio website</li><li>Publish a digital portfolio website</li></ul>

## **Instructional Activities**

**Lesson 64:** Showcasing Your Work Students organize and plan visual structure of their digital portfolio website. Students then write descriptions of why they invested in designing games, what they enjoyed the most about computer game design and coding, explain their choice of game genres (serious games, education, adventure, puzzle, etc.), and articulate their iterative design process. **CRD, IOC** 

**Lesson 64:** <u>Building Your Digital Portfolio Website</u> Students upload and showcase their playable games. Students include a one page design

document that serves as a quick view of their full game design document. **CRD, CSN** 

**Lesson 64:** Portfolio Presentation Students present their digital portfolio unpublished website to their peers for feedback. Students improve their website digital portfolios based on peer feedback, publish it to the Internet, and schedule a formal presentation to local business and / or educational leaders. **IOC** 

**Lesson 65:** <u>Postmortem</u> Students complete a full game design journal entry that deconstructs the game design process, describes their success as a computer game developer, and reflects on the importance of advanced computer programming skills in the game design industry. **IOC** 

## **AP CSP Curriculum Summary Chart**

Curricu	Curriculum		Big Idea					Computational Thinking Practices					Computing Innovation
Mod	Les	CRD	DAT	AAP	CSN	IOC	1	2	3	4	5	6	
1	1	Х				Х	Х					Х	
	2	Х	Х		Х	Х		Х				Х	
	3	Х			Х	Х						Х	
2	4	Х				Х	Х						
	5	Х			Х	Х					Х	Х	
	6	Х	Х		Х	Х			Х				
3	7	Х				Х	Х				Х		
	8	Х	Х			Х		Х	Х				
	9	Х	Х			Х		Х	Х				
	10	Х		Х		Х		Х	Х				
	11	Х	Х		Х	Х	Х			Х		Х	
4	12	Х		Х		Х	Х	Х	Х	Х			
	13	Х		Х		Х	Х	Х	Х	Х			
	14	х		х		х	Х	Х	Х	Х			

	15	Х	Х			Х	Х	Х	Х	Х			
5	16	Х		Х		Х	Х	Х	Х	Х			
	17	Х		Х		Х	Х	Х	Х	Х			
	18	Х	Х	Х		Х		Х	Х	Х			
	19	Х	Х	Х		Х		Х	Х	Х			
	20	Х				Х				Х			
6	21	Х		Х		Х	Х	Х	Х	Х			
	22	Х		Х		Х	Х	Х	Х	Х			
	23	Х		Х		Х	Х	Х	Х	Х			
	24	Х	Х			Х	Х	Х	Х	Х			
7	25	Х		Х		Х	Х	Х	Х	Х			
	26	Х		Х		Х	Х	Х	Х	Х			
	27	Х	Х	Х		Х	Х	Х	Х	Х			
	28	Х		Х		Х		Х	Х	Х			
	29	Х		Х		Х		Х	Х	Х			
	30	Х	Х			Х	Х	Х	Х	Х			
8	31	Х		Х		Х	Х	Х	Х	Х			
	32	Х		Х		Х		Х	Х	Х			
	33	Х	Х	Х	Х	Х		Х	Х	Х			
9	34	Х		Х		Х		Х	Х	Х			
	35	х		Х		Х		Х	Х	Х			
	36	х	х	Х		Х		Х	Х	Х			
	37	Х	х	х		Х		Х	Х	Х			
	38	Х	Х			Х	Х			Х			Explore
10	39	Х	х			Х	Х	Х	Х	Х			
	1	<u>i</u>	1	1	1	1	1	1	1	1	i	1	ı

	40	Х		Х		Х		Х	Х	Х			
	41	Х		Х		Х		Х	Х	Х			
	42	Х		Х		Х	х	Х	Х	Х			
	43	Х		Х		Х	х	Х	Х				
	44	Х	Х			Х							
11	45	Х		х		х		х	х	Х			
	46	Х		Х		Х		Х	Х	Х			
	47	Х		Х		Х		Х	Х	Х			
	48	Х	х			Х	Х						
12	49	Х		х		Х	Х						
	50	Х	Х	Х		Х	Х	Х	Х	Х			
	51	Х		Х		Х							
	52	Х		Х		Х	Х	Х					
	53	Х	Х			Х	Х						
13	54	Х		Х		Х		Х	Х	Х			
	55	Х	х	Х		Х	Х	Х	Х	Х			
	56	Х		Х		Х	Х	Х	Х	Х			
	57	Х	х	Х		Х		Х	Х	Х			
14	58	Х		Х		Х	Х	Х	Х	Х			
	59	Х		х		х		Х	Х	Х			
	60	Х		Х		Х	Х	Х	Х	Х			
	61	Х	х	Х		х	Х	х	х	Х	х		
	62	Х	Х	Х		Х	Х	Х	Х	Х			
15	63	х	x	x		х	х	х	х	х	х	х	Performance Task
16	64	х			Х	х	Х				Х	Х	

65	х		х			Х	

## **Digital Portfolio Website Guide**

- 1. Your digital portfolio should provide working examples of the games you have designed. If you have uploaded your games to a game design site, provide links to the games. Make sure the links are active. While it is fine to provide more than one example of your best work, note which example you consider your finest work. A separate game design rubric is used to assess the game you are showcasing.
- **2.** Include a one page quick view document of the full game design document you developed for your best work example.
- **3.** If your work has been archived somewhere, make sure to include information and a working link to where that archived game is found.
- **4.** Your digital portfolio should include a description about why you are invested in designing games, what you enjoy most about designing games, and what game design focus particularly interests you. For example, are you interested in designing games for education? Serious games? Action games? Your writing should be insightful and describe your depth of interest in game design.
- **5.** Share a game design experience. This should include iterations made after building a prototype for an internship, game jam, or game you've built for a project. Explain the reasoning behind the iterations and how they improved the playability of the game.
- **6.** Document reflections on a game project. This is called the project postmortem. What went well? What were some challenges? How were those challenges overcome? Focus on your design team experience. Your understanding of the game design process, in particular the role of iteration, needs to be clearly articulated.

- 7. If you created a digital game, make sure you include the games you have designed. Add information on the role you took in creating each game and your assessment of the role you took within a design team.
- **8.** Enjoy creating your digital portfolio. It should reflect your approach to game design. It also should reflect who you are, your unique creative skills, and your passion for game design.

## Zulama Computer Game Digital Portfolio Rubric

(included in course teacher resources)

Criteria	Unsatisfactory	Basic	Proficient	Exemplary	Rating
Score	1	2	3	4	
Selection of Artifacts	Artifacts and work samples do not relate to the purpose of the portfolio.	Some artifacts and samples relate to the purpose of the portfolio.	Several artifacts and samples strongly support the purpose of the portfolio.	All artifacts and samples relate to the purpose of the portfolio.	
Descriptions	No explanation is provided for the importance of included artifacts.	Limited explanation is provided for some of the included artifacts.	Clear explanations  are given for included artifacts, but with missing or limited insight into process and iterations.	Clear explanations are provided for all artifacts included in the portfolio, including several that give insight into the candidate's process and iteration.	
Layout	Portfolio lacks organization,	Portfolio is fairly well	Portfolio is well	Portfolio is engaging,	

	inconsistent use of fonts, color, theme, and font styles (bold, underline, italics).	organized but shows some inconsistencie s in color, theme, use of fonts, and font styles.	organized, easily navigated and consistent in color, theme, use of fonts, and font styles.	well organized, and visually pleasing and consistent in color, theme, use of fonts, and font styles.	
Writing Quality	Writing shows several spelling, grammar, and syntax errors.	Writing shows few spelling, grammar, and syntax errors but is in need of a final review.	Writing is mostly error free.	Writing shows meticulous attention to detail and indicates close review of grammar, syntax, and font styles.	

Game Design Document	Major design details are missing from the Design Document. The scope and intent of the project is unclear.	Details are missing from the Design Document, leading to misinterpretation of parts of the plan.	The Design Document is clear, unambiguous, and complete.	The Design Document includes a student designed summary cover page, is clear, and complete.	
Aesthetics	Minimal use of audio and graphics in designed games.	Some use of audio and graphics, but both are lacking in creativity.	Good use of audio and graphics that add high interest to the game.	Exceptional use of audio and graphics, creating a highly interesting and captivating game.	

Implementatio n	The game mechanics do not function properly. hindering the playability of the game.	The game mechanics generally function but are not engaging for players.	The game mechanics function well and succeed in engaging players at some points in the game.	The game mechanics are  well-designe d and function well, resulting in a highly playable and engaging game.	
Design Team Collaboration	Has some difficulty working with others. At times resists the ideas of others. Lacks leadership and resists iteration.	Shows respect for new ideas, works effectively with individuals of diverse opinions. Plans and interacts with team in productive ways.	Works effectively with individuals  embraces brainstorming and iteration. Provides team leadership.	Allows others to take the lead,  embraces the ideas of others, fulfills team role with extra effort, and embraces the iterative process.	
Postmortem	Reflections do not indicate an understanding of the iteration in the game design process.	Reflections indicate some understanding of iterative process in game design.	Reflections include a good description of the importance of iteration in game design.	Reflections indicate a complete description of the worth of the iterative process.	
Total Score					

**TEACHER NOTES** 





#### ADVANCED PLACEMENT LANGUAGE AND COMPOSITION

#### **COURSE DESCRIPTION**

In AP English Language and Composition, students investigate rhetoric and its impact on culture through analysis of notable fiction and nonfiction texts, from pamphlets to speeches to personal essays. The equivalent of an introductory college- level survey class, this course prepares students for the AP exam and for further study in communications, creative writing, journalism, literature, and composition.

Students explore a variety of textual forms, styles, and genres. By examining all texts through a rhetorical lens, students become skilled readers and analytical thinkers. Focusing specifically on language, purpose, and audience gives them a broad view of the effect of text and its cultural role. Students write expository and narrative texts to hone the effectiveness of their own use of language, and they develop varied, informed arguments through research. Throughout the course, students are evaluated with assessments specifically designed to prepare them for the content, form, and depth of the AP Exam.

#### **COURSE TEXTS**

Students will need access to the following texts, which they will obtain through the school or through their own means.

- Into the Wild, Jon Krakauer (Anchor, 1996). ISBN-10: 0385486804 / ISBN-13: 978-0385486804
- The Great Gatsby, F. Scott Fitzgerald (Scribner, 2004). ISBN-10: 0743273567 / ISBN-13: 978-0743273565
- A Raisin in the Sun, Lorraine Hansberry (Vintage, 2004). ISBN-10: 0679755330 / ISBN-13: 978-0679755333
- The Way to Rainy Mountain, N. Scott Momaday (University of New Mexico Press, 1976). ISBN-10: 0826304362 / ISBN-13: 978- 0826304360

Non-Fiction Readings	Fiction Readings
Jon Krakauer, Into the Wild	F. Scott Fitzgerald, <i>The Great Gatsby</i>
N. Scott Momaday, The Way to Rainy Mountain	Lorraine Hansberry, A Raisin in the Sun

Appendices page 2065 Pennwood Cyber Charter School

Patrick Henry, "Speech of Patrick Henry, March 23, 1775, in the Convention of Delegates of Virginia,"	Edgar Allan Poe, "The Raven" and "The Philosophy of Composition"
Thomas Paine, Common Sense	Mark Twain, "The War Prayer"
Thomas Paine, The American Crisis	Excerpts from As I Lay Dying by William Faulkner
"A Letter to Timothy Pickering about the Writing of the Declaration by John Adams"	Salvation by Langston Hughes
The Declaration of Independence	Katherine Anne Porter, "The Jilting of Granny Weatherall" from <i>Flowering Judas and Other Stories</i> .
The Constitution	T. S. Eliot, "The Love Song of J. Alfred Prufrock," in Prufrock and Other Observations
Tinker v. Des Moines Independent Community School District	Rita Dove, "Demeter's Prayer to Hades", from MOTHER LOVE
Susan B. Anthony, "Address of Susan B. Anthony," June 1873, in An Account of the Proceedings on the Trial of Susan B. Anthony	Judith Ortíz Cofer, "Gravity"
Ralph Waldo Emerson, from "The Essay on Self- Reliance"	Alan Weisman, The World Without Us
Henry David Thoreau, from Walden; or, Life in the Woods	Ray Bradbury, "Pedestrian"
Henry David Thoreau, "Resistance to Civil Government," in <i>Aesthetic Papers</i>	Kurt Vonnegut, "Harrison Bergeron"
Mark Twain, from Life on the Mississippi	Ted Chiang, "Exhalation" from EXHALATION: STORIES
Abraham Lincoln, Second Inaugural Address	
Frederick Douglass, Chapter V, in Narrative of the Life of Frederick Douglass, an American Slave	

Appendices page 2066 Pennwood Cyber Charter School

"What to the Slave Is the Fourth of July?" July 5, 1852 by Frederick Douglass	
Samuel R. Thurston. "Oregon," <i>New-York Daily Tribune</i> , December 12, 1850	
Margaret Frink, Journal of the Adventures of a Party of California Gold-seekers, n.p., 1897	
Frederick Jackson Turner, "The Significance of the Frontier in American History," in Report of the American Historical Association, 1893,	
Every Man a King by Huey P. Long	
Franklin D. Roosevelt, "Address by Franklin D. Roosevelt, 1933," Swearing-In, Joint Congressional Committee on Inaugural Ceremonies,	
Adam Clayton Powell, Jr., "Speech on Civil Rights (1955),"	
Margaret Chase Smith, "Declaration of Conscience,"	
President Lyndon B. Johnson, "Special Message to the Congress: The American Promise," March 15, 1965	
John F. Kennedy, "Address at Rice University on the Nation's Space Effort," September 12, 1962	
James Baldwin, "Notes of a Native Son," in Notes of a Native Son	
Zora Neale Hurston, "How It Feels to Be Colored Me," <i>The World Tomorrow</i> .	
Tim O'Brien, The Things They Carried	
Amy Tan, "Fish Cheeks,"	
Samuel Griswold Goodrich, "Red Jacket's Speech,"  Lives of Celebrated American Indians	

Appendices page 2067 Pennwood Cyber Charter School

Nicholas Carr, "Is Google Making Us Stupid?," July 1, 2008, <i>Atlantic Monthly</i> online	
Ray Kurzweil, "The Coming Merging of Mind and Machine," ScientificAmerican.com, March 23, 2009	

**COURSE DESIGN** 

Appendices page 2068 Pennwood Cyber Charter School

This two semester course is split into eight units (four units per semester) based on either thematic ideas or literary eras in chronological order. Each unit includes three lessons that focus on the analysis of at least three different texts.

#### **COURSE STRUCTURE**

Uni t	Titl e
Semest	ter One
1	The American Revolution
2	Romanticism and Transcendentalism
3	The American Narrative
4	Modernism and the American Dream
Semest	ter Two
5	Modernism and Language
6	Redefining Home
7	Fractured Identities
8	The Influence of Science and Technology

#### LESSON STRUCTURE AND INSTRUCTIONAL STRATEGIES

With the exception of Semester 2 Units 1 and 3, which have only the first 11 activities listed below, each lesson is made up of 14 activities:

- 1. Journal: The journal provides an outlet for informal student writing that anticipates the ideas that will follow in the lesson.
- 2. Reading: Satellite Instructional Materials are interpretations of, conversations with, insights on, and criticisms of Anchor Texts. These readings may be in textual, visual, audio, or video form and are accompanied by an analytical reading guide.
- 3. Study: The first study in a lesson is an interactive instructional activity, functioning to present new information and to prepare students for coming materials. Studies will include textual, visual, audio and video instruction, as well as frequent embedded checkpoint opportunities to confirm and underscore student comprehension.
- 4. Quiz: Upon completion of the study, students will be assessed on their learning with a 10-question quiz.
- 5. Reading (Anchor Text): This reading is the anchor text, the focal point of the lesson. These readings connect to the previous readings and study and are accompanied by an analytical reading guide.
- 6. Study: The second study in a lesson assists students in thoroughly analyzing the anchor text by providing interaction

- with selected portions of the text.
- 7. Quiz: Upon completion of the study, students will be assessed on their learning with a 10-question quiz.
- 8. Study: The third study in a lesson walks students through the development of an essay or speech draft (argumentative, analytical, or narrative).
- 9. Check-Up: The check-up is a grammar or speaking-based skill study. In many cases, the skills in the check-up are integrated into the revision task.
- 10. Practice or Project: The first practice or project in a lesson is the revision of the draft students created in the third STD. Students finalize their draft by implementing revision strategies.
- 11. Reading: Students will read an additional text that connects to the focus of the lesson, accompanied by an analytical reading guide.
- 12. Study: The fourth study in a lesson assists students in thoroughly analyzing the text by providing interaction with selected portions of the text.
- 13. Quiz: Upon completion of the study, students will be assessed on their learning with a 10-question quiz.
- 14. Check-Up: The second check-up of the lesson will provide students with an AP-style practice multiple choice test or practice timed essay prompt.

#### **Unit and Semester Exams**

At the end of each unit students take a two-part exam. Part 1 of the exam consists of multiple choice questions, modeled after the multiple choice section of the AP Exam. Part 2 of the exam asks students to create short-responses to AP style analysis prompts based on their readings over the course of the Unit.

At the end of each semester students take a proctored exam modeled after the AP Exam. The Semester Exam consists of 40 multiple choice questions and three free-response questions that mimic the AP Language and Composition free-response prompts.

## **Curricular Requirements**

The course is structured to address curricular requirements in each semester and in a variety of units, giving students the chance to refine their skills of analysis and argument over the progression of the course instead of in a single unit.

Students will address the "big ideas" of rhetorical situation, claims and evidence, reasoning and organization, and style, continually being asked to analyze texts and develop arguments throughout each unit and lesson in the course.

Curricular Requirement	Semester 1	Semester 2
------------------------	------------	------------

Appendices page 2070 Pennwood Cyber Charter School

- 4: The course provides opportunities for students to develop the skills in Skill Category 2 Rhetorical Situation (Writing): Make strategic choices in a text to address a rhetorical situation.
- 6: The course provides opportunities for students to develop the skills in Skill Category 4 Claims and Evidence (Writing): Analyze and select evidence to develop and refine a claim.
- 8: The course provides opportunities for students to develop the skills in Skill Category 6 Reasoning and Organization (Writing): Use organization and commentary to illuminate the line of reasoning in an argument.
- 11: The course provides opportunities for students to write argumentative essays synthesizing material from a variety of sources.

#### Narrative

Unit 2, Lesson 2: Develop a narrative poem. Unit 3, Lesson 1: Write a humorous personal narrative essay, incorporating techniques such as understatement and hyperbole.

#### **Analysis**

Unit 1, Lesson 2: Analyze the language of the Declaration of Independence.

Unit 2, Lesson 1: Analyze the methods Whitman and Dickinson use to develop a specific tone.
Unit 3, Lesson 2: Analyze the objective and subjective narrative formats of Douglass and Twain.

## **Argumentative**

Unit 1, Lesson 1: Argue for or against the colonies' separation from England (taking on role of colonist). Unit 2, Lesson 2: Argue for the effectiveness of a specific form of peaceful protest. Unit 3, Lesson 3: Argue for or against the creation of a monument for the pioneers.

## Argumentative (research-based)

Unit 4, Lesson 1-3: Argue for or against the viability of the American Dream in today's culture.

#### Narrative

Unit 1, Lesson 3: Write a narrative that incorporates the stream-of-consciousness writing style.

Unit 3, Lesson 2: Write a personal narrative that addresses a cultural conflict.

#### **Expository (research-based)**

Unit 2, Lesson 1-3: Explain the causes or effects of the civil rights movement.

Unit 4, Lesson 1: Explain an environmental problem.

## **Analysis**

Unit 1, Lesson 2: Analyze the language of a Modern poem and how it contributes to tone or purpose.

Unit 3, Lesson 3: Analyze how the structure of *The Way to Rainy Mountain* enhances meaning. Unit 4, Lesson 4: Analyze the purpose of a short story.

## **Argumentative**

Unit 3, Lesson 1: Argue for or against the appropriateness of the Vietnam memorial.

Unit 4, Lesson 2: Argue for or against the belief that technology has been detrimental to our society.

10: The course provides opportunities for students to develop the skills in Skill Category 8 – Style (Writing): Select words and use	Each writing assignment is developed as a draft and students are expected to revise each draft into a "final" form, based on teacher feedback, peer feedback, or self- evaluation.	Each writing assignment is developed as a draft and students are expected to revise each draft into a "final" form, based on teacher feedback, peer feedback, or self- evaluation.
elements of composition to advance an argument.	Each <u>revision</u> assignment focuses on specific skills:	Each <u>revision</u> assignment focuses on specific skills:
	Unit 1, Lesson 1: Presenting counterclaims and rebuttals, choosing words for connotative meanings Unit 1, Lesson 2: Developing strong commentary Unit 1, Lesson 3: Refining a conclusion paragraph Unit 2, Lesson 1: Developing strong commentary, integrating quotes smoothly into essays, providing transitions Unit 2, Lesson 2: Choosing words for connotative meanings Unit 2, Lesson 3: Clarifying a claim statement, strengthening rebuttals	Unit 1, Lesson 1: Developing strong commentary Unit 1, Lesson 2: Choosing strong evidence, adding transitions, proofreading Unit 1, Lesson 3: Developing internal monologue and dialogue Unit 2, Lesson 1: Refining the research process Unit 2, Lesson 2: Refining the introduction and conclusion paragraphs Unit 2, Lesson 3: Maintaining a formal tone, evaluating sources Unit 3, Lesson 1: Engaging the audience
	Unit 3, Lesson 1: Incorporating imagery Unit 3, Lesson 2: Refining the conclusion paragraph Unit 3, Lesson 3: Revising a speech for a new audience Unit 4, Lesson 1: Choosing appropriate sources	Unit 3, Lesson 2: Developing dialogue Unit 3, Lesson 3: Refining commentary Unit 4, Lesson 1: Using hyperlinks Unit 4, Lesson 2: Refining a rebuttal, correcting parenthetical citations
	Unit 4, Lesson 2: Varying syntax Unit 4, Lesson 3: Maintaining a formal tone	Unit 4, Lesson 3: Refining commentary

Appendices page 2072 Pennwood Cyber Charter School

- 2: The course requires an emphasis on nonfiction readings (e.g., essays, journalism, political writing, science writing, nature writing, autobiographies/biographies, diaries, history, criticism) that are selected to give students opportunities to identify and explain an author's use of rhetorical strategies and techniques.
- 3: The course provides opportunities for students to develop the skills in Skill Category 1 Rhetorical Situation (Reading): Explain how writers' choices reflect the components of the rhetorical situation.
- 4: The course provides opportunities for students to develop the skills in Skill Category 2 Rhetorical Situation (Writing): Make strategic choices in a text to address a rhetorical situation.
- 5: The course provides opportunities for students to develop the skills in Skill Category 3 Claims and Evidence (Reading): Identify and describe the claims and evidence of an argument.

Students will answer study guide questions focusing on the components of rhetorical situations of the following texts as a starting point for development of longer essays.

Nonfiction readings are selected for the purpose of analyzing rhetorical strategies: Unit 1

- Patrick Henry, "Speech to the Virginia Convention"
- Thomas Paine, excerpts from Common Sense and excerpts from The Crisis, No. 1
- John Adams, "Letter to Thomas Pickering"
- Declaration of Independence (original and revised/final drafts)
- Stephen E. Lucas, excerpts from "The Stylistic Artistry of the Declaration of Independence"
- Preamble to the Constitution
- Louis Michael Seidman, "Let's Give Up on the Constitution"
- Susan B. Anthony, "On Women's Right to Vote" (excerpts)
- Supreme Court majority opinion and dissent in the case of *Tinker v. Des Moines*

Focus terms: Rhetoric, parallelism, anaphora, logos, ethos, pathos, purpose, audience, bias, claim, diction, evidence, figurative language, metaphor, personification, rhetorical question, simile, tone, deductive reasoning, inductive reasoning, premise, slang, jargon, summary, rebuttal, allusion, metonymy, syllogism, aphorism, rhetorical shift,

Students will answer study guide questions focusing on the components of rhetorical situations of the following texts as a starting point for development of longer essays.

Nonfiction readings are selected for the purpose of analyzing rhetorical strategies: Unit 1

 Franklin D. Roosevelt, First Inaugural Address

Essay: Analyze the rhetorical techniques in FDR's First Inaugural Address.

#### Unit 2

- Adam Clayton Powell, "Speech on Civil Rights"
- John F. Kennedy, "Civil Rights Announcement"
- Robert F. Kennedy, "On the Assassination of Martin Luther King, Jr."
- Lyndon B. Johnson, "The American Promise"
- James Baldwin, "Notes of a Native Son"
- Zora Neale Hurston, "How It Feels to Be Colored Me"

Focus terms: Parallelism, figurative language, metaphor, simile, imagery, logos, ethos, pathos, anaphora, allusion, epistrophe

Essay: Develop a research essay that explores the causes and effects of the civil rights movement of the 1960s.

Appendices page 2073 Pennwood Cyber Charter School

- 7: The course provides opportunities for students to develop the skills in Skill Category 5 Reasoning and Organization (Reading): Describe the reasoning, organization, and development of an argument.
- 9: The course provides opportunities for students to develop the skills in Skill Category 7 Style (Reading): Explain how writers' stylistic choices contribute to the purpose of an argument.

anecdote, antithesis, alliteration, logical fallacy

Essay 1: Take a position on the colonies' independence from Britain. Argue for or against independence using ideas from the texts in this unit as evidence.

Essay 2: Write an essay analyzing the structure and language of the Declaration of Independence.

Essay 3: Evaluate the reasoning of the Supreme Court majority opinion and dissent in the case of *Tinker vs. Des Moines*.

#### Unit 2

- Edgar Allan Poe, excerpts from "Philosophy of Composition"
- Ralph Waldo Emerson, excerpts from "Self- Reliance" and "Nature"
- Henry David Thoreau, "On Civil Disobedience" and excerpts from Walden
- Jon Krakauer, Into the Wild

Focus terms: Figurative language, metaphor, simile, personification, alliteration, imagery, tone, aesthetic impact, mood, repetition, symbol, rhetorical question, parallelism, logos, ethos, pathos, catalog, elegiac, synecdoche, anastrophe, allusion, atmosphere, aphorism, maxim, didactic, antithesis, imagery, tone

Essay 1: Compare and contrast two authors' attitudes toward nature.

Activity 2: Write an argumentative speech that takes a position on how people should protest laws they think are unfair or unreasonable.

#### Unit 3

Mark Twain, "A Boys' Ambition" from

#### Unit 3

- Amy Tan, "Fish Cheeks"
- N. Scott Momaday, The Way to Rainy Mountain

Focus terms: Parallelism, imagery, aesthetic impact, ethos, point of view, autobiography, biography, narrative, rhetorical question, tone, allegory, parable, didactic, antithesis, parallelism, irony

Essay: Synthesis argument (see next section of the syllabus).

#### Unit 4

- Alan Weisman, excerpts from The World Without Us
- Rachel Carson, "Our Obligation to Endure"
- Neil Postman, excerpts from Amusing Ourselves to Death
- Nicholas Carr, "Is Google Making Us Stupid?"
- Ray Kurzweil, "The Coming Merging of Mind and Machine"
- Jared Diamond, "The Ends of the World as We Know Them"

Focus terms: Text structure, central idea, author's purpose, metaphor, simile, analogy, irony, point of view, aphorism, pun, anecdote, utopia, ambiguity, prophecy, neologism, verisimilitude

Essay: Synthesis argument (see next section of the syllabus).

Fiction, such as short stories, novels, and poetry
will accompany the study of nonfiction. However,
the focus will be placed on the use of language and
other rhetorical structures and strategies support
the purpose of these texts.

Pennwood Cyber Charter School

generalization, bias, nostalgic, caricature, bildungsroman, asyndeton, polysyndeton, polyptoton, homily, claim, metaphor, anaphora, canon, pronoun, paradox, zeugma, analogy, allusion, eulogy, periodic sentence

Essay 1: Write a narrative about a humorous situation using satirical techniques.

Essay 2: Write an essay analyzing the narrative techniques of Frederick Douglass and Mark Twain.

Essay 3: Take a position on whether Congress should create a national monument for those who moved to the West in the 1850s and 1860s, also known as pioneers.

#### Unit 4

- William Faulkner, Nobel Prize Speech
- John Jeremiah Sullivan, "How William Faulkner Tackled Race – and Freed the South from Itself"
- Langston Hughes, "Salvation"
- Sen. Huey P. Long, "Every Man a King"

Focus terms: Stream of consciousness, unreliable narrator, point of view, bias, rhetoric, symbol, symbolism, paradox, imagery, sarcasm, figurative language, irony, anti-hero, dialect, juxtaposition, parenthetical remark, epistrophe, rhetorical question, idiom, ethos, analogy, logical fallacy

Fiction, such as short stories, novels, and poetry will accompany the study of nonfiction. However, the focus will be placed on the use of language and other rhetorical structures and strategies support the purpose of these texts.

- 4: The course provides opportunities for students to develop the skills in Skill Category 2 Rhetorical Situation (Writing): Make strategic choices in a text to address a rhetorical situation.
- 6: The course provides opportunities for students to develop the skills in Skill Category 4 Claims and Evidence (Writing): Analyze and select evidence to develop and refine a claim.
- 8: The course provides opportunities for students to develop the skills in Skill Category 6 Reasoning and Organization (Writing): Use organization and commentary to illuminate the line of reasoning in an argument.
- 11: The course provides opportunities for students to write argumentative essays synthesizing material from a variety of sources.

Students write research papers in which they develop their own arguments and support them with outside sources: both primary and secondary.

Unit 4, Lesson 1-3: Take a position on the viability of the American Dream in today's culture Objectives:

- Narrow a research question and develop a claim.
- Use advanced web searches to find a variety of sources.
- Evaluate the reliability and credibility of sources.
- Use and document relevant sources.
- Incorporate at least one source that includes a graphic depiction of information.
- Synthesize evidence from at least three sources to support a claim.

Students write research papers in which they develop their own arguments and support them with outside sources: both primary and secondary.

Unit 3, Lesson 1: Take a position on the appropriateness of the Vietnam memorial Objectives:

- Synthesize evidence from at least three sources to support a claim.
- Unit 4, Lesson 2: Take a position on the belief that technology has been detrimental to our society. Objectives:
  - Evaluate the reliability and credibility of sources.
  - Use and document relevant sources.
  - Incorporate at least one source that includes a graphic depiction of information.
  - Synthesize evidence from at least three sources to support a claim.

Appendices page 2076

	<ul><li>Unit 3, Lesson 2</li><li>Unit 4, Lesson 2-3</li></ul>	<ul><li>Unit 3, Lesson 1</li><li>Unit 4, Lesson 1-2</li></ul>
The AP teacher provides instruction and feedback on students' writing assignments, both before and after the students revise	Essays will be scored with a rubric developed from the College Board's AP Language and Composition scoring guides for free-response questions.	Essays will be scored with a rubric developed from the College Board's AP Language and Composition scoring guides for free-response questions.
their work, that help the students develop these skills:	Rubrics are divided into three categories: Organization, development, and language. Students receive feedback at a variety of points in the writing process to support development of their skills.	Rubrics are divided into three categories: Organization, development, and language. Students receive feedback at a variety of points in the writing process to support development of their skills.
	Students are encouraged to implement revision suggestions prior to writing their final drafts.	Students are encouraged to implement revision suggestions prior to writing their final drafts.

Appendices page 2077 Pennwood Cyber Charter School

 A wide- ranging vocabulary used appropriately and effectively This is addressed by the language portion of the rubric.

Students are taught to use vocabulary that is appropriate to purpose and audience in the following lessons:

- Unit 1, Lesson 1
- Unit 1, Lesson 3
- Unit 2, Lesson 1
- Unit 3, Lesson 2
- Unit 3, Lesson 3

Students practice using the connotative and denotative forms of words in :

- Unit 1, Lesson 1
- Unit 2, Lesson 2

Students develop and maintain a list of vocabulary words and their definitions that are appropriate for a

higher-level audience as they move throughout the course.

This is addressed by the language portion of the rubric.

Students are taught to use vocabulary that is appropriate to purpose and audience in the following lessons:

- Unit 3, Lesson 1
- Unit 3, Lesson 3
- Unit 4, Lesson 2
- Unit 4, Lesson 3

Students practice using strong, active verbs in

• Unit 4, Lesson 3

Students develop and maintain a list of vocabulary words and their definitions that are appropriate for a higher-level audience as they move throughout the course.

Appendices page 2078 Pennwood Cyber Charter School

<ul> <li>A variety of</li> </ul>	This is addressed by the language portion of	This is addressed by the language portion of
sentence structures,	the rubric.	the rubric.
including	Students learn and practice using varied sentence	Students learn and practice using varied
appropriate use	structures, including subordination and	sentence structures, including subordination an
of subordination	coordination, in the following lessons:	coordination, in the following lessons:
and coordination	• Unit 1, Lesson 2	<ul><li>Unit 1, Lesson 2</li></ul>
	<ul> <li>Unit 4, Lesson 2</li> </ul>	<ul><li>Unit 2, Lesson 1</li></ul>
	• Unit 4, Lesson 3	• Unit 3, Lesson 1
Logical organization,	This is addressed by the organization portion of	This is addressed by the organization portion of
enhanced by specific techniques to	the rubric.	the rubric.
increase coherence,	Students practice using transitional elements in	Students practice using transitional elements in
such as repetition,	the following lessons:	the following lessons:
transitions, and	<ul> <li>Unit 1, Lesson 1</li> </ul>	<ul><li>Unit 1, Lesson 2</li></ul>
emphasis	<ul> <li>Unit 1, Lesson 2</li> </ul>	<ul><li>Unit 2, Lesson 1</li></ul>
	<ul> <li>Unit 2, Lesson 3</li> </ul>	<ul><li>Unit 3, Lesson 1</li></ul>
		<ul><li>Unit 4, Lesson 2</li></ul>
	Students practice using other rhetorical strategies	
	for effect in the following lessons:	Students practice using other rhetorical
	• Unit 1, Lesson 2	strategies for effect in the following lessons: <ul><li>Unit 4, Lesson 1</li></ul>
A balance of	This is addressed by the development portion of	This is addressed by the development portion of
generalization and specific,	the rubric.	the rubric.
illustrative	Students learn about and practice developing the	Students learn about and practice developing th
detail	body paragraphs of an essay with both general	body paragraphs of an essay with both general
	and specific details (including quotes from texts	specific details (including quotes from texts who
	when necessary) in each of the writing	necessary in each) of the writing assignments,
	assignments, which	which
	occur at the end of each lesson.	occur at the end of each lesson.
An effective use of	This addressed by the language portion of the rubric.	This addressed by the language portion of the ru

Appendices page 2079 Pennwood Cyber Charter School

rhetoric, including controlling tone, establishing and maintaining voice, and achieving appropriate emphasis through diction and sentence structure

Students practice developing rhetorical arguments in the following lessons:

- Unit 1, Lesson 1: Argue for or against the colonies' separation from England (taking on role of colonist).
- Unit 2, Lesson 2: Argue for the effectiveness of a specific form of peaceful protest.
- Unit 3, Lesson 3: Argue for or against the creation of a monument for the pioneers.

Students are taught to use vocabulary that is appropriate to purpose and audience in the following lessons:

- Unit 1, Lesson 1
- Unit 1, Lesson 3
- Unit 2, Lesson 1
- Unit 3, Lesson 2
- Unit 3, Lesson 3

Students practice using the connotative and denotative forms of words in :

- Unit 1. Lesson 1
- Unit 2, Lesson 2

Students practice developing rhetorical arguments in the following lessons:

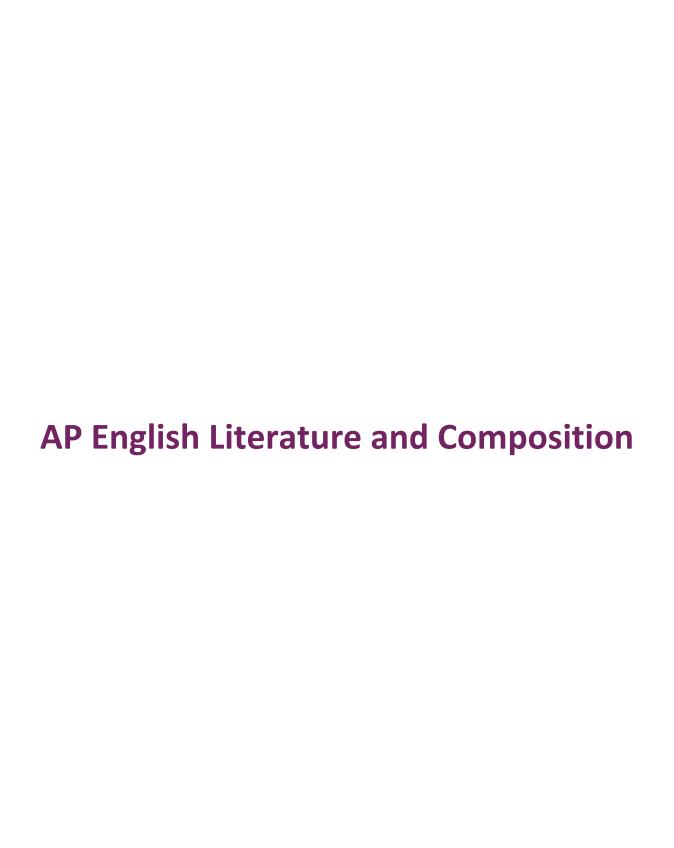
- Unit 3, Lesson 1: Argue for or against the appropriateness of the Vietnam memorial.
- Unit 4, Lesson 2: Argue for or against the belief that technology has been detrimental to our society.

Students are taught to use vocabulary that is appropriate to purpose and audience in the following lessons:

- Unit 3, Lesson 1
- Unit 4, Lesson 2
- Unit 4, Lesson 3

Students practice using strong, active verbs in

• Unit 4, Lesson 3





# AP® English Literature and Composition Syllabus

Curricular Requirements	Page(s)
<b>CR1</b> The course is structured by unit, theme, genre, or other organizational approach that provides opportunities to engage with the Big Ideas throughout the course: Character, Setting, Structure, Narration, Figurative Language, Literary Argumentation.	6–15
<b>CR2</b> The course includes works of short fiction, poetry, and longer fiction or drama from the range of literary periods (pre-20 <sup>th</sup> century and 20 <sup>th</sup> /21 <sup>st</sup> centuries.	6–15
<b>CR3</b> The course provides opportunities for students to develop the skills in Skill Category 1: Explain the function of character.	6–8, 10–12, 14
<b>CR4</b> The course provides opportunities for students to develop the skills in Skill Category 2: Explain the function of setting.	7–15
<b>CR5</b> The course provides opportunities for students to develop the skills in Skill Category 3: Explain the function of plot and structure.	6–15
<b>CR6</b> The course provides opportunities for students to develop the skills in Skill Category 4: Explain the function of the narrator or speaker.	7, 11, 13–14
CR7 The course provides opportunities for students to develop the skills in Skill Category 5: Explain the function of word choice, imagery, and symbols.	6–11, 13–15
CR8 The course provides opportunities for students to develop the skills in Skill Category 6: Explain the function of comparison.	7
<b>CR9</b> The course provides opportunities for students to develop the skills in Skill Category 7: Develop textually substantiated arguments about interpretations of a portion or whole text.	4, 6–15
<b>CR10</b> The course provides opportunities for students to write essays that proceed through multiple stages or drafts, including opportunities for conferring and collaborating with teacher and/or peers.	6–15

Appendices page 2082 Pennwood Cyber Charter School

# Big Ideas

Big Idea	Enduring Understanding	Page(s)
1. Character Skill Category 1	Characters in literature allow readers to study and explore a range of values, beliefs, assumptions, biases, and cultural norms represented by those characters.	6–10, 12, 14
2. Setting Skill Category 2	Setting and the details associated with it not only depict a time and place, but also convey values associated with that setting.	7–12, 14–15
3. Structure Skill Category 3	The arrangement of the parts and sections of a text, the relationship of the parts to each other, and the sequence in which the text reveals information are all structural choices made by a writer that contribute to the reader's interpretation of a text.	6–15
4. Narration Skill Category 4	A narrator's or speaker's perspective controls the details and emphases that affect how readers experience and interpret a text.	7–10, 12, 14
5. Figurative Language Skill Categories 5 and 6	Comparisons, representations, and associations shift meaning from the literal to the figurative and invite readers to interpret a text.	6–8, 10, 12–15
6. Literary Argumentation Skill Category 7	Readers establish and communicate their interpretations of literature through arguments supported by textual evidence.	8, 12, 14

## **Course Summary**

In this course, students complete a full academic year of coursework similar to a first-year, college-level English course. This course covers the framework, reading and writing practices, and curriculum requirements for an AP® English Literature and Composition course as required by the College Board. This course combines practical experience in reading and analyzing imaginative and expository texts and will prepare students to take the AP English Literature and Composition exam in the spring. The overarching topics in this course are literary analysis and the drafting and revising of interpretative, expository, analytical, and argumentative writing.

Students learn through direct instruction, regular checks and practices, discussions, portfolios, and a project completed during the second semester. Students also take a practice assessment for the AP English Literature and Composition exam prior to the actual AP English Literature and Composition test date.

#### **Course Units**

#### Semester A

- Unit 1: Course Overview
- Unit 2: Reading Critically Across Genres
- Unit 3: Poetry: Language, Style, and Tone
- Unit 4: Novel Study
- Unit 5: Mid-Semester Check
- Unit 6: Introduction to Drama
- Unit 7: Drama: King Lear
- Unit 8: Semester Exam

## Semester B

- Unit 1: Course Overview
- Unit 2: Short Fiction
- Unit 3: Poetry: Sound, Syntax, and Structure
- Unit 4: Mid-Semester Check
- Unit 5: Novel and Culture: *Invisible Man*
- Unit 6: Review and Full-Length Practice Exam
- Unit 7: Semester Project: Writing a Comparative Analysis
- Unit 8: Semester Exam

## **Writing Assignments**

In each lesson, students respond in a notebook to questions that reinforce the instruction from the lesson and respond to assigned readings and other resources. As they read the core texts, students also write regular entries in a reader-response journal, which they submit to be assessed twice a semester. Students also complete longer portfolios that require them to synthesize lesson content from across lessons and resources to analyze certain exam topics in-depth.

In addition to these writing activities, students also have opportunities throughout the course to practice the style of writing they will use on the AP exam: timed,

focused writing. Lessons throughout the course offer students sample AP passages and writing prompts, to which they must respond in class within a designated time period. Some of these writing-intensive lessons are followed by a revision lesson that allows students to revise and rewrite their responses [CR10].

#### **Drafting and Revision**

Portfolios are structured to allow for prewriting/drafting, teacher feedback, and revision. Students are given designated time during lessons to work on these portfolio assignments, but there is also an expectation that additional drafts and revisions take place outside of class [CR9].

Draft assignments come early in any given unit, allowing for time to teachers to provide feedback to students according to criteria on a rubric. As in keeping with the expected rigor of any AP course, this teacher feedback is wide-ranging, deep, and exhaustive. Teachers provide feedback [CR10] to students related to the specific guidelines of a particular assignment, as well as the following criteria: use of a wide-ranging, domain-specific vocabulary; use of a variety of sentence structures; logical organization of a written work; use of illustrative detail and examples, with a balance between the specific and the general; and effective use of rhetoric as related to tone, voice, and style.

Students are expected to implement teacher feedback—as well as demonstrate new skills and knowledge they have acquired in the unit—into the final draft of a portfolio, typically submitted near the end of a given unit.

#### Assessments

Throughout the course, a variety of formative and summative assessments are used to assess student learning and prepare students for the expectations of the AP English Literature and Composition exam. Students are provided with ample opportunity for skill practice, engagement in meaningful discourse with their peers, and application of their understanding via tasks that are representative of real-world scenarios. Summative assessment types lend themselves to a deeper level of rigor and include portfolios and discussions. Formative assessments are designed to be auto-graded to give students and teachers instant feedback for targeted instruction.

Most lessons contain a quick check assessment that covers the objectives in the lesson, and most units have at least one cumulative quiz that also assesses lesson objectives. Each instructional unit culminates in an online practice to help students review unit concepts and skills, followed by a unit test that consists of multiple choice and short answer and/or essay questions. To aid students in retaining content throughout the course of a semester, a mid-semester check unit appears in

the middle of each semester, featuring a low-risk practice assessment covering the objectives learned up to that point during the semester.

A graded full-length practice exam in the style of the AP English Literature and Composition exam is given at the end of Semester B. This exam closely mimics what students will see on the actual AP exam and includes a mix of multiple-choice questions based on a passage and timed writing prompts that simulate the free- response questions on the AP exam [CR10]. Each semester ends with a semester project and semester exam.

Most units feature a discussion or portfolio that promotes critical thinking by expanding on topics students have learned. Graded assessments and participation all count toward the student's final grade.

#### LiveLesson® Session: Online Classroom

Students will collaborate synchronously with peers through LiveLesson sessions. These sessions allow students to ask questions and take part in real-time discussions. During these sessions, students have the opportunity to discuss the literature they are reading, as well as to work collaboratively with their peers.

These sessions are also used to reinforce difficult concepts and to provide a low- stakes environment for students to practice new skills and concepts.

#### **Course Outline**

#### Semester A

#### **Unit 1: Course Overview**

In this unit, students will do the following:

- Acquaint themselves with the goals and expectations of the course.
- Learn about the types of activities that will appear in the course.

## Unit 2: Reading Critically Across Genres [CR1, CR2, CR5, CR9] [Big Ideas 1, 3, 5]

In this unit, students will do the following:

- Define genre and identify characteristics of poetry, drama, fiction, and expository prose.
- Differentiate between literary characteristics in specific genres of writing.
- Analyze how textual details and stylistic features contribute to a text's theme.
- Analyze a text's genre, theme, and other stylistic features.

## Sample activities in this unit:

- Writing Assignment: Students will read the story "Desiree's Baby," by Kate Chopin, and
  complete a dialectical notebook entry responding to 8–10 quotations from the story. They will
  also complete a plot analysis of the story and identify how terms used in the lesson are applied
  in the story. In addition, they will consider what adjectives they would use to describe a
  character in the story and how they know these things about this character. They will provide
  support from the text for each of their descriptive terms. [CR3, CR5, CR7, CR9]
- Writing Assignment: Students will read the literary criticism article "Generic Translation and Thematic Shift in Susan Glaspell's 'Trifles' and 'A Jury of Her Peers.'" Then they will write a summary of the article in their notebook. They should include any observations about how this analysis connects to themes they have explored in the works in this unit. Then they will outline ananalysis of theme in Susan Glaspell's *Trifles*. They should include a thesis statement clearly asserting a theme, followed by three interpretive assertions, each with three supporting textual details. [CR9]

Discussion: Students participate in a collaborative discussion about two texts covered in the
course so far. They will analyze the texts' treatment of similar or related themes, identifying a
common subject and comparing the way the two texts treat the subject. They will also discuss
other concepts related to theme, such as form or genre, characterization, types of character,
irony, or figurative language. [CR3, CR7, CR8]

## Required reading:

- Jane Austin, *Pride and Prejudice* (Chapter 3 excerpt)
- Elizabeth Barret Browning, "XXI," Sonnets from the Portuguese
- Elizabeth Barret Browning, "LXIIII," Sonnets from the Portuguese
- Kate Chopin, "Desiree's Baby"
- Susan Glaspell, *Trifles*

# Unit 3: Poetry: Language, Style, and Tone [CR1, CR2, CR5, CR4, CR7, CR8, CR9, CR10] [Big Ideas 1, 2, 3, 4, 5]

In this unit, students will do the following:

- Define and identify examples of imagery and figurative language in poetry, including allusion, irony, metaphor, personification, and simile.
- Analyze the effects of imagery and figurative language on both tone and theme.
- Evaluate the effectiveness of a poet's use of diction, imagery, and figurative language in various styles of poetry.
- Compare and contrast poems from different historical eras.
- Revise writing based on teacher feedback. Sample

#### activities in this unit:

- Activity: Students will read "Ebb" by Edna St. Vincent Millay and write about how the poet uses comparisons of simile and metaphor to create meaning [CR8]
- Activity: Students rewrite clichéd similes to create fresh comparisons [CR8]
- Activity: Students will analyze use of personification by Robert Frost in "A Brook in the City"
   [CR8]
- Activity: Students will write an analysis of allusions in "In the Reading Room" by David Ferry [CR8]
- Portfolio: Students will write a critical analysis essay that analyzes the different stylistic choices
  that two poets from different eras make in developing a similar theme. Their essay will focus
  on poetry written between

the Renaissance and the Romantic eras. Students will submit a draft to the teacher and submit a revised final essay based on teacher feedback. [CR2, CR3, CR4, CR5, CR6, CR7, CR8, CR9, CR10]

#### Required reading:

- Selections from Poetry Foundation and the online texts *English Renaissance Poetry* and *English Romantic Poetry*, including the following:
  - o William Blake, selections from Songs of Innocence and Songs of Experience
  - Margaret Atwood, "Siren Song"
  - o Nikki Giovanni, "Mothers"
  - W.B. Yeats, "The Second Coming"
  - o Matthew Arnold, "Dover Beach"
  - o John Keats, "Odes"
  - Gary Soto, "Oranges"
  - John Donne, Selections
  - Lord Byron, "Childe Harold's Pilgrimage"

# Unit 4: Novel Study [CR1, CR2, CR3, CR7, CR4, CR5, CR9, CR10] [Big Ideas 1, 2, 3, 4, 5, 6]

In this unit, students will do the following:

- Examine and analyze the elements of novels, including plot, characterization, dialogue, point of view, theme, tone, voice, and overall structure.
- Evaluate the significance and effectiveness of an author's use of figurative elements, including figurative language, diction, symbolism, imagery, and motifs.
- Analyze an author's use of structural elements such as narrative order and syntax on a novel's theme.
- Compare and contrast the social and cultural values expressed by novels written in a variety of time periods.
- Revise writing based on teacher feedback. Sample

#### activities in this unit:

Portfolio: Students will write an argumentative essay interpreting and evaluating the author's
use of figurative language, imagery, symbolism, and tone. Students must make and explain a
judgement about how the textual details relate to the artistry and quality of the author's
work. [CR1, CR7, CR9, CR10]

## Required reading:

Students will read excerpts from diverse authors and texts, including the following:

- Miguel de Cervantes, Don Quixote
- Daniel Defoe, Robinson Crusoe
- Fyodor Dostoyevsky, Notes from Underground
- George Eliot, Middlemarch
- E. M. Forster, A Room with a View
- Henry James, *The Portrait of a Lady*
- Edith Wharton, The Age of Innocence
- Virginia Woolf, The Voyage Out

#### Students will also choose to read one of these novels independently:

- Jane Austin, *Pride and Prejudice*
- Charlotte Brontë, Jane Eyre
- Emily Bronte, Wuthering Heights
- Willa Cather, O Pioneers!
- Joseph Conrad, Lord Jim
- Charles Dickens, A Tale of Two Cities
- Charles Dickens, *Great Expectations*
- Gustave Flaubert, *Madame Bovary*
- Thomas Hardy, Tess of the D'Urbervilles
- Nathaniel Hawthorne, The Scarlet Letter
- James Joyce, A Portrait of the Artist as a Young Man
- Herman Melville, *Moby-Dick*
- Mary Shelley, Frankenstein
- Mark Twain, The Adventures of Huckleberry Finn

# Unit 5: Mid-Semester Check [CR1, CR2, CR7, CR5, CR4] [Big Ideas 2, 3, 5]

In this unit, students will do the following:

- Review the topics that they have learned from the beginning of this semester.
- Demonstrate knowledge by completing a graded mid-semester check in the style of the AP English Literature and Composition exam.

Appendices page 2090 Pennwood Cyber Charter School

## Unit 6: Introduction to Drama [CR1, CR2, CR4, CR8, CR9] [Big Ideas 1, 2, 3, 4]

In this unit, students will do the following:

- Define and identify types of drama, including choreopoem, comedy, farce, tragedy, tragicomedy, tragic hero.
- Analyze the influence of cultural, historical, literary, and social contexts on the development of drama.
- Explain the relationship between drama and audience, including how a drama impacts a specific audience in a specific time and place.
- Compare and contrast drama with other forms of writing.
- Engage in collaborative discussion of the cultural and social influences on and effects of drama.

# Sample activities in this unit:

• Discussion: Students will participate in a collaborative discussion responding to the first scene in *King Lear*. They will discuss ideas such as the cultural and social values that are evident in this first scene. [CR4]

Required reading: Students will read excerpts from different plays:

- William Congreve, Love for Love: A Comedy
- Euripides, Medea
- Henrik Ibsen, A Doll's House
- William Shakespeare, King Lear
- Oscar Wilde, The Importance of Being Earnest

# Unit 7: Drama: *King Lear* [CR1, CR2, CR3, CR5, CR7, CR5, CR9, CR10] [Big Ideas 1, 2, 3, 4, 5] In this unit, students will do the following:

- Analyze the key ideas, plot elements, and central characters in a drama, including how characters embody archetypal elements, are motivated to act, and experience transformation.
- Analyze the ways in which a dramatist uses diction and syntax to establish meaning, create voice, and develop tone.
- Identify a dramatist's use of symbolism and motif throughout a play and analyze how the use of these devices affects theme.

- Use evidence from a drama, including a dramatist's use of plot elements, symbols, characterization, dramatic irony, diction, and syntax, to analyze how a theme is developed.
- Revise writing based on teacher feedback. Sample

#### activities in this unit:

Portfolio: Students will analyze how Shakespeare uses elements of drama and literature in
 King Lear to develop the theme of power and corruption. This culminates in an analytical
 essay in which students use elements from the play—including characterization, point of view,
 dramatic irony, monologue, soliloquy, figurative language, symbolism, and tone—to explore
 how Shakespeare develops a central theme. [CR3, CR6, CR7, CR9, CR10]

Required reading: William Shakespeare, King Lear

#### Unit 8: Semester Exam [CR1, CR2, CR7, CR5, CR4, CR9] [Big Ideas 2, 3]

In this unit, students will do the following:

- Review all topics covered this semester.
- Demonstrate knowledge by completing a graded semester exam written in the style of the AP English Literature and Composition exam

#### Semester B

#### **Unit 1: Course Overview**

In this unit, students will do the following:

- Acquaint themselves with the goals and expectations of the course.
- Learn about the types of activities that will appear in the course.

# Unit 2: Short Fiction [CR1, CR2, CR3, CR4, CR5, CR9, CR10,] [Big Ideas 1, 2, 3, 4, 5, 6]

In this unit, students will do the following:

- Define genre and identify characteristics of short fiction, including setting, plot, character, dialogue, point of view, and theme.
- Identify characteristics of short fiction and analyze their impact on tone, voice, and point of view and the relationship between style and theme.
- Evaluate the impact of short fiction, including those written in nontraditional styles, on cultural and literary norms.
- Analyze a variety of works of short fiction, both traditional and nontraditional, and differentiate between authors' techniques.
- Revise work based on teacher feedback. Sample

#### activities in this unit:

Portfolio: Students will analyze a work of fiction, "The Metamorphosis," and write an
argumentative essay to explain how its author pushes both socio- cultural and literary
boundaries to address important issues of the time period. Students will submit a draft of
their analysis to teacher for feedback and revise using feedback [CR1, CR2, CR4, CR10]

#### Required reading:

- Kate Chopin, "The Awakening"
- Ralph Ellison, *Invisible Man* (Prologue and Chapter 1)
- Charlotte Perkins Gilman, "The Yellow Wallpaper"
- Franz Kafka, "The Metamorphosis"
- Jonathan Swift, "A Modest Proposal"

# Unit 3: Poetry: Sounds and Syntax [CR1, CR2, CR5, CR9, CR10, ] [Big Ideas 3, 5]

In this unit, students will do the following:

- Define and identify examples of the following types of poetic structures: ballad verse, blank verse, free verse, heroic couplet, and terza rima.
- Analyze and evaluate the effect of syntax on tone and meaning, including the use of rhyme scheme and verse.
- Analyze and evaluate an author's use of sound devices in poetry, including alliteration, assonance, cacophony, consonance, and onomatopoeia.
- Develop an argument about the quality and overall artistic merit of a contemporary poem.
- Revise writing based on teacher feedback. Sample

#### activities in this unit:

Portfolio: Students will write a textual analysis essay that analyzes and evaluates the
relationship between new poetic styles and meaning. They will research contemporary poetry
and choose a poem from a suggested list that they believe has artistic merit. [CR4, CR5, CR6,
CR7, CR9, CR10]

Required reading: Selections from Poetry Foundation and the online texts *English Renaissance Poetry* and *English Romantic Poetry*, including the following:

- Louise Erdrich, "Indian Boarding School: The Runaways"
- Mary Oliver, "Singapore"
- Judith Ortiz Cofer, "Women Who Love Angels"
- T.S. Eliot, "The Love Song of J. Alfred Prufrock"
- Wallace Stevens, "Thirteen Ways of Looking at a Blackbird"
- Robert Frost, "The Oven Bird"
- Amy Lowell, "Venus Transiens"
- William Wordsworth, "Lines Written a Few Miles Above Tintern Abbey"
- Samuel Taylor Coleridge, "The Rime of the Ancient Mariner"
- Percy Bysshe Shelley, Sonnets

#### Unit 4: Mid-Semester Check [CR1, CR2, CR7, CR5, CR4] [Big Ideas 2, 3, 5]

In this unit, students will do the following:

- Review the topics that they have learned from the beginning of this semester.
- Demonstrate knowledge by completing a graded mid-semester check in the style of the AP English Literature and Composition exam.

# Unit 5: Novel and Culture: *Invisible Man* [CR1, CR2, CR3, CR7, CR5, CR6, CR4, CR9, CR10, ] [Big Ideas 1, 2, 5, 6]

In this unit, students will do the following:

- Analyze the effect of using characteristics of memoir and first-person point of view on the development of character in *Invisible Man*.
- Evaluate the impact Ellison's use of imagery, figurative language, and symbolism have on the development of theme in *Invisible Man*.
- Analyze the cultural and social context of *Invisible Man* and evaluate their effect on the meaning.
- Evaluate the relationship between Ellison's characterization of the narrator and the cultural themes of the novel.
- Analyze the characteristics of Bildungsroman and existentialism in relation to *Invisible Man*.

#### Sample activities in this unit:

Portfolio: Students will use the themes of identity and perception to write an argumentative
essay to answer these questions: How does one become an individual? How is the individual
shaped by social and cultural forces? Students will use excerpts from the novel, as well as
information from their own experiences, to answer this question in a well-structured essay.
[CR1, CR3, CR4, CR6, CR9, CR10]

Required reading: Ralph Ellison, Invisible Man

# Unit 6: Review and Full-Length Practice Exam [CR1, CR2, CR7, CR5, CR4, CR10, CR9, ] [Big Ideas 2, 3, 5]

In this unit, students will do the following:

- Review the entire course, using the results of the mid-semester check and unit tests to focus this review.
- Complete a full-length practice exam in the style of the AP English Literature and Composition exam, over the course of three days.

# Unit 7: Semester Project: Writing a Comparative Analysis [CR1, CR2, CR7, CR5, CR9, CR10] [Big Ideas 3, 5]

In the project unit, students write a comparative analysis using one expository prose text and one fictional text. Their analysis will synthesize information from both texts to explore how authors use elements of literature in both fiction and prose. Students will participate in peer reviews and revise their projects accordingly.

#### Required reading:

- Rupert Brooke, "Niagara Falls"
- Henry David Thoreau, "Where I Lived, And What I Lived For"
- Ralph Waldo Emerson, "Nature"
- John Muir, "Yosemite"
- Marian Storm, "A Woodland Valentine"

# Unit 8: Semester Exam [CR1, CR2, CR7, CR5, CR4, CR9] [Big Ideas 2, 3, 5]

In this unit, students will do the following:

- Review all topics covered this semester.
- Demonstrate knowledge by completing a graded semester exam written in the style of the AP English Literature and Composition exam.

# **AP Environmental Science**



# **AP Environmental Science**

# **Course Overview**

Name	AP Environmental Science
Description	AP Environmental Science provides two semesters of material designed to offer students a solid foundation in introductory college-level environmental science. The course is structured around the four big ideas and the seven science practices. Each semester is divided into four units with two or three lessons in each unit. Those lessons are further divided into several activities in which students read, acquire content knowledge through interactives, complete written practice, take quizzes, and summative assessments.
	biology, earth science, and physical science are applied to the study of the environment and how technology and engineering are contributing solutions for studying and creating a sustainable biosphere.
	Robust scaffolding, rigorous instruction, relevant material, and regular active learning opportunities ensure that students can achieve mastery of the skills necessary to excel on the AP exam.

Appendices page 2098

Prerequisites	Recommended: Two years of high school laboratory science, including life science and physical science, along with at least one year of algebra
CR 1	The majority of the instructional resources for this course are available to students
Instructional	online through the actual course.
Resources	
	In addition, either the student or the school must purchase the following:
	Environment: The Science Behind the Stories, 7th Edition. Jay Withgott. (Pearson, 2019)
	Acceptable alternate: 6 th ed.
	(2018). Acceptable alternate: 5th ed.
	(2014). OR
	Environment, 9th Edition. Peter H. Raven, David M. Hassenzahl, Mary Catherine
	Hager, Nancy Y. Gift, and Linda R. Berg. (John Wiley & Sons, 2015)
	Various lab materials that can be purchased individually or in a kit through a third-party vendor. Access to the link to purchase the kit is provided to all students.

The following key should help you understand the different types of activities in which students engage.

Activity type	Description	
Read	Students are provided a reading passage in their textbook and complete the provided reading guide.	
Lab	Student complete a hands-on lab, the provided questions and lab report.	
Discuss	Students discuss topics in an online forum. Students are provided questions to direct their thinking and help them prepare as they interact with other students.	
Explore	Students visit provided websites and complete questions after reading about a topic.	
Practice	Students answer questions regarding what they have learned thus far.	
Quiz	Computer administered and automatically graded assessment.	
Review	Review of the material covered in a unit or over a semester	
Study	Primary instructional online content that teaches new concepts through multimedia and interactivity. Links to relevant web resources are often included.	
Test	Assessment covering the material introduced in a unit.	

# **CR 2 Environmental Legislation and Policies**

AP Environmental Science details multiple pieces of environmental legislation, initiatives, and policies in unit 9, lesson 3 and interwoven throughout the course. They are listed below:

- Antarctic Treaty System
- Kyoto Protocol
- Montreal Protocol
- United Nations Framework Convention on Climate Change
- Paris Agreement
- Environmental Protection Treaty
- Migratory Birds and Game Mammals Treaty
- Polar Bear Treaty
- Migratory Bird Act
- Ramsar Convention
- Convention on International Trade in Endangered Species
- Convention on Biological Diversity
- International Treaty on Plant Genetic Resources for Food and Agriculture
- Endangered Species Act
- World Trade Organization
- United Nations and European Union
- Comprehensive Environmental Compensation Liability Act
- Resource Conservation Recovery Act
- Safe Drinking Water Act
- Delaney Clause
- Clean Power Plan
- Clean Water Act
- Soil and Water Resources Conservation Act
- Clean Air Act
- National Environmental Policy Act
- National Park Service Organic Act

#### **CR 3 Big Ideas and Required Content**

Apex Learning's AP Environmental Science course is designed around the four big ideas, the enduring understanding within the big ideas, and the essential knowledge that supports that enduring understanding.

### Big Idea 1: Energy Transfer (ENG)

Energy conversions underlie all ecological processes. Energy cannot be created; it must come from somewhere. As energy flows through systems, at each step, more of it becomes unusable.

# Big Idea 2: Interactions Between Earth Systems (ERT)

The Earth is one interconnected system. Natural systems change over time and space.

Biogeochemical systems vary in ability to recover from disturbances.

### Big Idea 3: Interactions Between Different Species and the Environment (EIN)

Humans alter natural systems and have had an impact on the environment for millions of years. Technology and population growth have enabled humans to increase both the rate and scale of their impact on the environment.

# Big Idea 4: Sustainability (STB)

Human survival depends on developing practices that will achieve sustainable systems. A suitable combination of conservation and development is required. The management of resources is essential. Understanding the role of cultural, social, and economic factors is vital to the development of solutions

	Apex Learning Unit Title and Content	College Board CED Unit Titles	Big Ideas
1	<ul> <li>Introduction to AP Environmental Science</li> <li>Carbon, nitrogen, phosphorus, and water cycles</li> </ul>	Unit 1: The Living World: Ecosystems	ERT
2	<ul> <li>Earth's Physical Systems</li> <li>Tectonic plates</li> <li>Soil formation and erosion</li> <li>Earth's atmosphere</li> <li>Global wind patterns</li> <li>Earth's geography and climate</li> <li>El Niño and La Niña</li> <li>Ocean warming and acidification</li> </ul>	Unit 4: Earth Systems and Resources Unit 9: Global Change	ERT, ENG, STB
3	Ecosystem Structure Introduction to ecosystems Terrestrial and aquatic biomes Primary productivity Trophic levels The flow of energy in an ecosystem and the 10% rule Food chains and food webs Introduction to biodiversity Ecosystem services Island biogeography Ecological tolerance Natural disruptions to ecosystems Ecological succession Ocean warming and acidification Human impacts on diversity	Unit 1: The Living World: Ecosystems Unit 2: The Living World: Biodiversity Unit 9: Global Change	ERT, ENG, STB, EIN
4	Population Ecology      Generalist and specialist species     Survivorship curves     Population growth and resource	Unit 3: Populations Unit 5: Land and Water Use Unit 9: Global Change	ERT, EIN

Appendices page 2101 Pennwood Cyber Charter School

		T	
	availability		
	<ul> <li>Age structure diagrams</li> </ul>		
	<ul> <li>Human population dynamics</li> </ul>		
	<ul> <li>Urbanization and ecological</li> </ul>		
	footprints		
	Human impacts on diversity		
6	Land and Water Use	Unit 5: Land and Water Use	EIN, STB
	The Green Revolution	Unit 9: Global Change	·
	<ul> <li>Types and effects of irrigation</li> </ul>	ome st closer change	
	Pest-control methods		
	<ul> <li>Meat production methods</li> </ul>		
	and overfishing		
	The impacts of mining		
	Urbanization and ecological		
	_		
	footprints		
	Introduction to sustainable		
	practices including crop rotation		
	and aquaculture		
	<ul> <li>Invasive species</li> </ul>		
	Human impacts on diversity		
7	Energy Consumption and Resources	Unit 6: Energy Resources	ENG, EIN
	<ul> <li>Energy sources and fuel types,</li> </ul>	and Consumption	
	including fossil fuels, ethanol, and	Unit 9: Global Change	
	nuclear power		
	Natural sources of energy, including		
	solar power, wind, geothermal, and		
	hydroelectric power		
	Energy conservation methods		
	Human impacts on diversity		
8	Pollution and Waste Management	Unit 5: Land and Water Use	EIN, STB
	The tragedy of the commons	Unit 7: Atmospheric Pollution	,
	The impacts of mining	· ·	
	Introduction to air pollution	Unit 8: Aquatic and Terrestrial	
	Photochemical smog	Pollution	
	Indoor air pollution	Unit 9: Global Change	
	Methods to reduce air pollutants		
	Acid rain		
	Noise pollution		
	Sources of pollution		
	Human impact on ecosystems		
	Thermal pollution		
	Solid waste disposal and waste		
	reduction methods		
	Pollution and human health		
	Pathogens and infectious diseases		
	<ul><li>Ozone depletion</li></ul>		
	Human impacts on diversity		
9	Global Challenges	Unit 6: Energy Resources	ENG, EIN, STB
	Global energy consumption and		,, 515
	distribution of natural	and Consumption	
		Unit 9: Global Change	
	resources		
	Global climate change     Human impacts on diversity		
1	<ul> <li>Human impacts on diversity</li> </ul>		

Appendices page 2102 Pennwood Cyber Charter School

# CR 4, 5, 6, 7, 8, 9 and 10

The seven science practices are embedded throughout the course. A unit breakdown is included below and specific examples of each science practice is listed below the unit breakdown.

\*Unit tests and semester exams are not listed but do appear at the end of each unit and each semester. Semester 1 consists of units 1-4. Semester 2 consists of units 5-8.

UNIT 1	Apex Learning Unit Title: Introduction to AP Environmental Science
	CED Unit: Unit 1: The Living World: Ecosystems
	Science Practices 1, 2, 4, 5, 6, 7
Lesson 1	Science and the Environment
1.1.1	Study: The Interdisciplinary Science
	Identify the many fields of science that contribute to the study and understanding of the interrelated, dynamic systems of Earth's environment. Relate examples of environmental studies and equipment to specialized fields of science. Recommend areas of expertise that might contribute information relevant to specific environmental issues.
1.1.2	Quiz: The Interdisciplinary Science
1.1.3	Study: Applied Science and Technology
	Describe the role of technology in environmental science and human society. Identify
	commonly used devices and systems that are important to environmental studies.
	Describe the importance of technology and environmental studies to human health
1.1.4	and well-being.  Quiz: Applied Science and Technology
1.1.5	Practice: Science and the Environment
	Identify the many fields of science that contribute to the study and understanding of the
	interrelated, dynamic systems of Earth's environment. Relate examples of environmental
	studies and equipment to specialized fields of science. Recommend areas of expertise
	that might contribute information relevant to specific environmental issues. Describe
	the role of technology in environmental science and human society. Identify commonly
	used devices and systems that are important to environmental studies. Use the Internet
	to
	locate and collect information about GPS and GIS technology. Discuss the validity and
	impact of scientific research on environmental issues related to human activities.
1.1.6	Read: Science and the Environment
1.1.7	Read about science and the environment.  Quiz: Science and the Environment
1.1.8	Explore: GPS and GIS Technology
1.1.0	Relate examples of environmental studies and equipment to specialized fields of science.
	Describe the role of technology in environmental science and human society. Identify
	commonly used devices and systems that are important to environmental studies.
	Describe the importance of technology and environmental studies to human health
	and well-being.
1.1.9	Lab: Investigate Your Ecological Footprint
	Conduct a scientific investigation, using a scientific process and demonstrating the proper
	and safe use of laboratory equipment. Analyze data by using data tables, calculating the
	range and average of a set of measurements, and identifying sources of error.
1.1.10	Discuss: Investigate Your Ecological Footprint
	Analyze data by using data tables, calculating the range and average of a set of
	measurements, and identifying sources of error. Evaluate lab procedures and results in a

Appendices page 2103

	discussion with your page
	discussion with your peers.
Lesson 2	Energy and Systems
1.2.1	Study: Matter and Energy
	Recognize the major types of matter that make up the biosphere. Recognize the forms of
	energy that enter and flow through the geosphere. Identify the processes that transform
	energy as it moves through the geosphere. Compare the characteristics of different
	surfaces on Earth, including albedo and heat capacity. Differentiate among scavengers,
	decomposers, and detritivores. Trace the flow of matter and energy through a food chain
	and a food web.
1.2.2	Quiz: Matter and Energy
1.2.3	Study: The Flow of Matter and Energy
	Differentiate among scavengers, decomposers, and detritivores. Trace the flow of matter
	and energy through a food chain and a food web.
1.2.4	Quiz: The Flow of Matter and Energy
1.2.5	Study: Biogeochemical Cycles
	Trace the movement of water in the water cycle from one part of the environment to
	another. Trace the movement of carbon in the carbon cycle from one part of the
	environment to another. Trace the movement of nitrogen and phosphorus from one part
	of
	the environment to another.
1.2.6	Quiz: Biogeochemical Cycles
1.2.7	Practice: Matter and Energy in the Biosphere
	Recognize the major types of matter that make up the biosphere. Recognize the forms of
	energy that enter and flow through the geosphere. Identify the processes that transform
	energy as it moves through the geosphere. Compare the characteristics of different
	surfaces on Earth, including albedo and heat capacity. Differentiate among scavengers,
	decomposers, and detritivores. Trace the flow of matter and energy through a food chain
	and a food web.
1.2.8	Lab: Investigate Cycling of O2 and CO2
	Conduct a scientific investigation, using a scientific process and demonstrating the proper
	and safe use of laboratory equipment. Analyze data by using data tables, calculating the
	range and average of a set of measurements, and identifying sources of error.
1.2.9	Discuss: Investigate Cycling of O2 and CO2
	Analyze data by using data tables, calculating the range and average of a set of
	measurements, and identifying sources of error. Evaluate lab procedures and results in a
	discussion with your peers.
UNIT 2	Apex Learning Unit Title: Earth's Physical Systems
	CED Title: Unit 4: Earth Systems and Resources; and Unit 9: Global Change
	Science Practices 1, 2, 3, 4, 5, 7
Lesson 1	They Hydrosphere
2.1.1	Project: Part I — Explore Your Local Physical Environment
	Research and describe the physical features and abiotic factors that characterize the
	geographical area in which you live.
2.1.2	Study: Bodies of Water
	Identify the characteristics of the major types of bodies of water. Describe the formation
	of and characteristics of the major types of bodies of water.
2.1.3	Quiz: Bodies of Water

Appendices page 2104 Pennwood Cyber Charter School

2.1.4	Ctudy Mayamants of the Hydrocahara
2.1.4	Study: Movements of the Hydrosphere
	Relate solar energy to ocean currents and the distribution of heat around the globe.
	Describe the causes and effects of ocean waves and tides. Trace the path of groundwater
245	from soil to the ocean.
2.1.5	Quiz: Movements of the Hydrosphere
2.1.6	Practice: The Hydrosphere Describe the reasons that liquid water can exist on Earth. Describe the formation of and
	characteristics of the major types of bodies of water. Relate solar energy to ocean
	currents and the distribution of heat around the globe. Identify reasons for fluctuations in
	sea level. Describe the causes and effects of ocean waves and tides. Trace the path of
	groundwater from soil to the ocean.
2.1.7	Read: The Hydrosphere
2.1.7	Read about the hydrosphere.
2.1.8	Quiz: The Hydrosphere
2.1.9	Lab: Investigate Watershed Analysis
	Conduct a scientific investigation, using a scientific process and demonstrating the proper
	and safe use of laboratory equipment. Analyze data by using data tables, calculating the
	range and average of a set of measurements, and identifying sources of error.
2.1.10	Discuss: Investigate Watershed Analysis
	Analyze data by using data tables, calculating the range and average of a set of
	measurements, and identifying sources of error. Evaluate lab procedures and results in a
	discussion with your peers.
Lesson 2	The Atmosphere
2.2.1	Study: Structure and Movements of the Atmosphere
	Describe the structure, composition, and temperature of Earth's atmosphere. Identify the
	processes of wind generation and relate them to different types of local and global wind
2.2.2	systems. Quiz: Structure and Movements of the Atmosphere
2.2.3	Study: Weather and Climate
2.2.3	Describe the major climate zones and their characteristics. Explain how ocean currents,
	wind patterns, and topography affect climate. Explain how Earth's orbit, tilt, and wobble
	affect the planet's climate. Describe the effects of El Niño and La Niña on global weather patterns.
2.2.4	Quiz: Weather and Climate
2.2.5	Practice: The Atmosphere
2.2.3	Describe the structure, composition, and temperature of Earth's atmosphere. Identify the
	processes of wind generation and relate them to different types of local and global wind
	systems. Describe the major climate zones and their characteristics. Explain how ocean
	· · · · · · · · · · · · · · · · · · ·
	currents, wind patterns, and topography affect climate. Explain how Earth's orbit, tilt, and
	wobble affect the planet's climate. Describe the effects of El Niño and La Niña on global
	weather patterns. Discuss the validity and impact of scientific research on environmental
2.2.6	issues related to human activities.  Lab: Investigate Passive Heating and Cooling
2.2.0	Conduct a scientific investigation, using a scientific process and demonstrating the proper
	and safe use of laboratory equipment. Analyze data by using data tables, calculating the
	range and average of a set of measurements, and identifying sources of error.
2.2.7	Discuss: Investigate Passive Heating and Cooling
۷.۷.۱	Analyze data by using data tables, calculating the range and average of a set of
	measurements, and identifying sources of error. Evaluate lab procedures and results in a
	discussion with your peers.

Appendices page 2105 Pennwood Cyber Charter School

2.3.1	Study: Earth's Crust and Landforms
	Relate the surface features of Earth's crust to the theory of plate tectonics. Distinguish
	erosional features and depositional features of Earth's crust.
2.3.2	Quiz: Earth's Crust and Landforms
2.3.3	Study: Soil Composition and Structure
	Identify the types of weathering and the agents of each type of weathering. Describe the
	types of soil and the processes of soil formation.
2.3.4	Quiz: Soil Composition and Structure
2.3.5	Study: Movements of Land and Soil
	Identify the types of erosion and their effects on Earth's crust. Relate the different types of
	faults to the different types of tectonic plate boundaries.
2.3.6	Quiz: Movements of Land and Soil
2.3.7	Checkup: The Geosphere
	Relate the surface features of Earth's crust to the theory of plate tectonics. Distinguish
	erosional features and depositional features of Earth's crust. Identify the types of
	weathering and the agents of each type of weathering. Describe the types of soil and
	the processes of soil formation. Identify the types of erosion and their effects on Earth's
	crust. Relate the different types of faults to the different types of tectonic plate
	boundaries.
	Discuss the validity and impact of scientific research on environmental issues related to
2.3.8	human activities.
2.5.0	Read: The Geosphere Read about the geosphere
2.3.9	Quiz: The Geosphere
2.3.10	Explore: Earthquake Prediction and Readiness
2.3.10	Recognize areas on Earth where earthquakes are likely to occur. Distinguish the three
	types of earthquake waves. Describe how geologists rate the destructive force of an
	earthquake. Identify ways that human communities in earthquake zones can prepare for
Lesson 4	and limit damages caused by strong earthquakes.
2.4.1	Earth's Physical Systems Wrap-up Project: Part II — Explore Your Local Physical Environment
2.4.1	Research and describe the physical features and abiotic factors that characterize the
	geographical area in which you live.
UNIT 3	Apex Learning Unit Title: Ecosystem Structure
	CED Title: Unit 1: The Living World: Ecosystems; Unit 2: The Living World: Biodiversity;
	and Unit 9: Global Change
	Science Practices 1, 2, 4, 5, 6
Lesson 1	Nature of Ecosystems
3.1.1	Project: Part I — Explore Your Local Ecosystem
31212	Recognize the major types of biotic factors in an ecosystem and their roles in the
	biosphere. Distinguish biological species, populations, and communities. Identify the
	, , , , , , , , , , , , , , , , , , , ,
	abiotic factors in an ecosystem and their importance to living organisms. Explain how
	biotic factors interact with the abiotic factors of an ecosystem.
3.1.2	Study: What Is a Biological Community?
	Distinguish biological communities from populations and ecosystems. Identify major
212	types of biological communities.
3.1.3	Quiz: What Is a Biological Community?
3.1.4	Study: Species Interactions
	Describe the types of interactions that occur among the species in biological
	communities. Analyze food chains and food webs that describe the interactions of
	species in a biological community. Explain the nature and importance of ecological
	niches.

Appendices page 2106

3.1.5	Quiz: Species Interactions
3.1.6	Study: Community Structure
3.1.0	Model the makeup of communities using ecological pyramids. Understand the factors that
	affect community stability and biodiversity.
3.1.7	Quiz: Community Structure
3.1.8	Practice: Nature of Ecosystems
	Distinguish biological communities from populations and ecosystems. Identify major
	types of biological communities. Describe the types of interactions that occur among the
	species in biological communities. Analyze food chains and food webs that describe the
	interactions of species in a biological community. Explain the nature and importance of
	, , , , , , , , , , , , , , , , , , , ,
	an ecological niche. Model the makeup of communities using ecological pyramids. Understand the factors that affect community stability and biodiversity
3.1.9	Explore: The Importance of Coral Reefs
3.1.3	Describe characteristics of aquatic ecosystems. Evaluate the importance of individual
	ecosystems to the health of biomes and the biosphere.
Lesson 2	Changes in Ecosystems
3.2.1	Study: Natural Disturbances and Succession
	Describe how destructive natural events in the geosphere can affect ecosystems. Predict
	the effects of the removal of species from biological communities. Predict the effects
	of the introduction of nonnative species on communities.
3.2.2	Quiz: Natural Disturbances and Succession
3.2.3	Study: Evolution and Biodiversity
	Identify the sources and importance of genetic diversity in natural populations,
	ecosystems, and the biosphere. Summarize the process of natural selection and its role in
	biological evolution. Predict changes that may occur in an ecosystem when its amount of
	biodiversity changes.
3.2.4	Quiz: Evolution and Biodiversity
3.2.5	Checkup: Changes in Ecosystems
	Describe how destructive natural events in the geosphere can affect ecosystems. Predict
	the effects of the removal of species from biological communities. Predict the effects of
	the introduction of nonnative species on communities. Recognize the sources and
	importance of genetic diversity in natural populations, ecosystems, and the biosphere.
	Summarize the process of natural selection and its role in biological evolution. Predict
	changes that may occur in an ecosystem when its amount of biodiversity changes.
	Discuss the validity and impact of scientific research on environmental issues related to
	human activities.
3.2.6	Read: Changes in Ecosystems Read
3.2.0	about changes in ecosystems.
3.2.7	Quiz: Changes in Ecosystems
3.2.8	Lab: Investigate Using a Dichotomous Key
	Conduct a scientific investigation, using a scientific process and demonstrating the proper
	and safe use of laboratory equipment. Analyze data by using data tables, calculating the
	range and average of a set of measurements, and identifying sources of error
3.2.9	Discuss: Investigate Using a Dichotomous Key
	Analyze data by using data tables, calculating the range and average of a set of
	measurements, and identifying sources of error. Evaluate lab procedures and results in a
Lesson 3	discussion with your peers  Ecosystems and Biomes
3.3.1	Study: Aquatic Ecosystems
J.J.1	Describe characteristics of aquatic ecosystems.
3.3.2	Quiz: Aquatic Ecosystems
3.3.2	- Carrier Agang Copyloremo

Appendices page 2107 Pennwood Cyber Charter School

3.3.3	Study: Land Ecosystems	
3.3.3	Identify the major land and aquatic biomes. Describe the distinguishing biotic and abiotic	
	features of a given biome. Compare the plants and animals of your local biome with	
	those of the other major biomes found in North America	
3.3.4	Quiz: Land Ecosystems	
3.3.5	Read: Ecosystems and Biomes	
5.5.5	Read about ecosystems and biomes	
3.3.6	Quiz: Ecosystems and Biomes	
3.3.7	Checkup: Ecosystems and Biomes	
	Describe characteristics of land ecosystems. Describe characteristics of aquatic	
	ecosystems. Identify the major land and aquatic biomes. Describe the distinguishing	
	biotic and abiotic features of a given biome. Compare the plants and animals of your	
	local biome with those of the other major biomes found in North America. Evaluate the	
	importance of individual ecosystems to the health of biomes and the biosphere. Discuss	
	l '	
	the validity and impact of scientific research on environmental issues related to human activities.	
3.3.8	Lab: Investigate Primary Productivity	
3,5,5	Conduct a scientific investigation, using a scientific process and demonstrating the proper	
	and safe use of laboratory equipment. Analyze data by using data tables, calculating the	
	range and average of a set of measurements, and identifying sources of error	
3.3.9	Discuss: Investigate Primary Productivity	
3.3.9	Analyze data by using data tables, calculating the range and average of a set of	
	measurements, and identifying sources of error. Evaluate lab procedures and results in a discussion with your peers	
Lesson 4	Ecosystem Structure Wrap-up	
3.4.1	Project: Part II — Explore Your Local Ecosystem	
5.4.1	Recognize the major types of biotic factors in an ecosystem and their roles in the	
	biosphere. Distinguish biological species, populations, and communities. Identify the	
	abiotic factors in an ecosystem and their importance to living organisms. Explain how	
	biotic factors interact with the abiotic factors of an ecosystem.	
	biotic factors interact with the abiotic factors of an ecosystem.	
UNIT 4	Apex Learning Unit Title: Population Ecology	
	CED Title: Unit 3: Populations; Unit 5: Land and Water Use; and Unit 9: Global Change	
	Science Practices 1, 2, 3, 4, 5, 6, 7	
Lesson 1	Population Ecology	
4.1.1	Study: Characteristics of Populations	
	Identify characteristics used to describe populations. Identify limiting factors that	
	affect populations and their characteristics. Describe a population's carrying capacity	
	and the factors that determine the carrying capacity. Explain how populations change	
	in size.	
4.1.2	Quiz: Characteristics of Populations	
4.1.3	Study: Population Growth	
	, , , , , , , , , , , , , , , , , , , ,	
	Describe the factors that produce both positive and negative population growth. Compare	
	Describe the factors that produce both positive and negative population growth. Compare exponential and logistic patterns of population growth. Explain the significance of studying	
	Describe the factors that produce both positive and negative population growth. Compare exponential and logistic patterns of population growth. Explain the significance of studying populations over time	

Appendices page 2108 Pennwood Cyber Charter School

4.1.5	Practice: Population Biology
4.1.3	Identify characteristics used to describe populations. Identify limiting factors that affect
	populations and their characteristics. Describe a population's carrying capacity and the
	factors that determine the carrying capacity. Explain how populations change in size.
	, , , , , , , , , , , , , , , , , , , ,
	Describe the factors that produce both positive and negative population growth. Compare
	exponential and logistic patterns of population growth. Explain the significance of studying populations over time.
4.1.6	Lab: Investigate Estimating Population Size
4.1.0	Conduct a scientific investigation, using a scientific process and demonstrating the proper
	and safe use of laboratory equipment. Analyze data by using data tables, calculating the
417	range and average of a set of measurements, and identifying sources of error.
4.1.7	Discuss: Investigate Estimating Population Size
	Analyze data by using data tables, calculating the range and average of a set of
	measurements, and identifying sources of error. Evaluate lab procedures and results in a
Lesson 2	discussion with your peers. Human Populations
4.2.1	Study: Human Population Dynamics
<b>→.∠.</b> ⊥	Describe historical trends in human population growth and distribution. Identify
	characteristics of human populations
4.2.2	Quiz: Human Population Dynamics
4.2.3	Study: Human Communities
4.2.3	Describe the purposes of human communities. Identify different kinds of human
	communities. Explain how individuals work together in groups. Explain how
	individuals and groups work together in communities
4.2.4	Quiz: Human Communities
4.2.5	Checkup: Human Populations
	Describe historical trends in human population growth and distribution. Identify
	characteristics of human populations. Describe the purposes of human communities.
	Identify different kinds of human communities. Explain how individuals work together in
	groups. Explain how individuals and groups work together in communities
4.2.6	Read: Human Populations
	Read about human populations
4.2.7	Quiz: Human Populations
4.2.8	Explore: Public Health Policies
	Research objectives and accomplishments of public health policies
Lesson 3	Impacts of Population Growth
4.3.1	Study: Renewable Resources
	Identify renewable resources on which humans depend. Differentiate between renewable
	and nonrenewable resources. Evaluate the cost-benefit trade-offs of using renewable
122	resources instead of nonrenewable resources
4.3.2 4.3.3	Quiz: Renewable Resources
4.3.3	Study: Nonrenewable Resources Identify nonrenewable resources on which humans depend. Differentiate between
	renewable and nonrenewable resources. Describe how the use of natural resources will
	affect future generations of humans
4.3.4	Quiz: Nonrenewable Resources
4.3.5	Practice: Impacts of Population Growth
=	Identify renewable resources on which humans depend. Identify nonrenewable
	resources on which humans depend. Differentiate between renewable and
	nonrenewable resources. Evaluate the cost-benefit trade-offs of using renewable
	resources instead of nonrenewable resources. Describe how the use of natural resources
	will affect future
	will direct future

Appendices page 2109 Pennwood Cyber Charter School

	generations of humans. Describe alternative forms of energy production	
426	Dood: Insurante of Domislation County	
4.3.6	Read: Impacts of Population Growth	
4.3.7	Quiz: Impacts of Population Growth	
4.3.8	Lab: Investigate Resource Consumption	
	Conduct a scientific investigation, using a scientific process and demonstrating the proper	
	and safe use of laboratory equipment. Analyze data by using data tables, calculating the	
	range and average of a set of measurements, and identifying sources of error.	
4.3.9	Discuss: Investigate Resource Consumption	
	Analyze data by using data tables, calculating the range and average of a set of	
	measurements, and identifying sources of error. Evaluate lab procedures and results in a	
	discussion with your peers	
UNIT 6	Apex Learning Unit Title: Land and Water Use	
	CED Title: Unit 5: Land and Water Use; and Unit 9: Global Change	
	Science Practices 1, 2, 3, 4, 5, 6	
Lesson 1	Obtaining Earth's Resources	
6.1.1	Project: Part I — Explore Your Local Environmental Challenges	
0.1.1	Research and describe environmental challenges that affect the geographical area in	
6.1.2	which you live	
6.1.2	Study: Land and Water Resources Identify natural resources obtained from Earth's land and water and used to support	
	the lifestyles of humans. Recognize the interdependence of natural resources.	
	Evaluate the economic significance of natural resources	
6.1.3	Quiz: Land and Water Resources	
6.1.4	Study: Agriculture, Forestry, and Fishing	
	Identify types and sources of biological resources used to produce food and goods that	
	support human lifestyles. Evaluate the economic significance of natural resources.  Recognize the interdependence of natural resources.	
6.1.5	Quiz: Biological Resources	
6.1.6	Study: Mineral Resources and Mining	
31210	Identify types and sources of mineral resources used to produce goods and energy that	
	support human lifestyles. Learn about types of mining and the environmental effects of	
	mining. Recognize the interdependence of natural resources.	
6.1.7	Quiz: Mineral and Energy Resources	
6.1.8	Practice: Earth's Natural Resources	
3. <u></u>	Identify the types of Earth's land and water used to support the lifestyles of humans.	
	Identify types and sources of mineral resources used to produce goods and energy that	
	support human lifestyles. Recognize the interdependence of natural resources. Identify	
	types and sources of biological resources used to produce food and goods that support	
	human lifestyles	
6.1.9	Lab: Investigate How Pollutants Affect Plants	
0.1.5	Conduct a scientific investigation, using a scientific process and demonstrating the proper	
	and safe use of laboratory equipment. Analyze data by using data tables, calculating the	
C 4 4 2	range and average of a set of measurements, and identifying sources of error.	
6.1.10	Discuss: Investigate How Pollutants Affect Plants	
	Discuss the results of the investigation.	

Appendices page 2110 Pennwood Cyber Charter School

Lesson 2	Recreation and Urban Development				
6.2.1	Study: Recreation, Conservation, and Urban Development				
0.2.2	Summarize the effects on natural ecosystems of human activities such as recreation,				
	urbanization, conservation, preservation, restoration, and resource gathering and				
	management.				
6.2.2	Quiz: Recreation, Conservation, and Urban Development				
6.2.3	Study: Human Cultures and Societies				
	Summarize the nature and purpose of human cultures and societies. Identify examples of				
	different types of human cultures and societies.				
6.2.4	Quiz: Human Cultures and Societies				
6.2.5	Practice: Land Use and Its Effects				
	Evaluate the economic significance of natural resources. Summarize the effects and cost-				
	benefit trade-offs of practices used in commercial agriculture, forestry, and fishing.				
	Evaluate the hazards and risks involved in obtaining natural resources. Evaluate the				
	hazards and risks to human health and well-being involved in obtaining and managing				
	natural resources. Summarize the advantages and disadvantages of using different				
	energy resources. Summarize the effects on natural ecosystems of human activities such				
	as recreation, urbanization, conservation, preservation, restoration, and resource				
	gathering and management. Discuss the validity and impact of scientific research on				
	environmental issues related to human activities				
6.2.6	Read: Recreation and Urban Development				
	Read about recreation and urban development.				
6.2.7	Quiz: Recreation and Urban Development				
6.2.8	Explore: Effects of Climate Change				
	Explore scientists' predictions about the effects of global climate change on the biosphere.				
Lesson 3	Sustainable Resources				
6.3.1	Study: Sustainable Food Production				
	Explain the goal of using sustainable practices in food production, resource management,				
	and human societal development. Describe sustainable methods of food production,				
	resource management, and human societal development. Compare traditional practices				
	used in food production, resource management, and human societal development with				
	sustainable practices. Identify advantages and disadvantages of using "green" and				
	sustainable practices in food production, resource management, and human societal				
	development.				
6.3.2	Quiz: Sustainable Food Production				
6.3.3	Study: Sustainable Resource Management				
	Explain the goal of using sustainable practices in food production, resource management,				
	and human societal development. Describe sustainable methods of food production,				
	resource management, and human societal development. Compare traditional practices				
	used in food production, resource management, and human societal development with				
	sustainable practices. Identify advantages and disadvantages of using "green" and				
	sustainable practices in food production, resource management, and human societal				
	development.				
6.3.4	Quiz: Sustainable Resource Management				

Appendices page 2111 Pennwood Cyber Charter School

6.3.5	Charleyn: Systainable Practices
6.3.5	Checkup: Sustainable Practices
	Explain the goal of using sustainable practices in food production, resource management,
	and human societal development. Describe sustainable methods of food production,
	resource management, and human societal development. Compare traditional practices
	used in food production, resource management, and human societal development with
	sustainable practices. Identify advantages and disadvantages of using "green" and
	sustainable practices in food production, resource management, and human societal
	development. Summarize the process of carbon dioxide sequestration and technologies
	that achieve it. Discuss the validity and impact of scientific research on environmental
	issues related to human activities.
6.3.6	Read: Sustainable Practices Read
	about sustainable practices.
6.3.7	Quiz: Sustainable Practices
6.3.8	Lab: Investigate Food Security
	Conduct a scientific investigation, using a scientific process and demonstrating the proper
	and safe use of laboratory equipment. Analyze data by using data tables, calculating the
	range and average of a set of measurements, and identifying sources of error.
6.3.9	Discuss: Investigate Food Security
	Discuss the results of the investigation
Lesson 4	Land and Water Use Wrap-up
6.4.1	Project: Part II — Explore Your Local Environmental Challenges
	Research and describe environmental challenges that affect the geographical area in
	which you live.
UNIT 7	Apex Learning Unit Title: Energy Consumption and Resources (CED Unit 6, 9)
	CED Title: Unit 6: Energy Resources and Consumption; and Unit 9: Global Change
	Science Practices 1, 2, 4, 5, 6, 7
Lesson 1	Energy Concepts and Traditional Sources
7.1.1	Study: Types of Energy
	Learn about different types of energy and examples of each type.
7.1.2	Quiz: Types of Energy
7.1.3	Study: Fossil Fuels
	Identify types and sources of mineral resources used to produce goods and energy that
714	support human lifestyles. Recognize the interdependence of natural resources.
7.1.4	Quiz: Fossil Fuels
7.1.5	Practice: Energy Concepts and Traditional Sources
	Identify the types of Earth's land and water used to support the lifestyles of humans.
	Identify types and sources of mineral resources used to produce goods and energy that
1	support human lifestyles. Recognize the interdependence of natural resources. Identify
	support human lifestyles. Recognize the interdependence of natural resources. Identify types and sources of biological resources used to produce food and goods that support
	types and sources of biological resources used to produce food and goods that support human lifestyles
7.1.6	types and sources of biological resources used to produce food and goods that support human lifestyles  Read: Energy Concepts and Traditional Sources
7.1.6	types and sources of biological resources used to produce food and goods that support human lifestyles
7.1.6	types and sources of biological resources used to produce food and goods that support human lifestyles  Read: Energy Concepts and Traditional Sources
	types and sources of biological resources used to produce food and goods that support human lifestyles  Read: Energy Concepts and Traditional Sources  Read about energy concepts and traditional sources

Appendices page 2112 Pennwood Cyber Charter School

	T
7.1.9	Discuss: Investigate Home Energy Audits
	Analyze data by using data tables, calculating the range and average of a set of
	measurements, and identifying sources of error. Evaluate lab procedures and results in a
	discussion with your peers
Lesson 2	Energy and Sustainability
7.2.1	Study: Energy and Sustainability
	Learn about the advantages and disadvantages of different energy sources; learn how to
	apply scientific reasoning to analyze socially relevant energy issues.
7.2.2	Quiz: Energy and Sustainability
7.2.3	Study: Alternative Energy Resources
	Describe how the use of natural resources will affect future generations of humans.
	Describe alternative forms of energy production.
7.2.4	Quiz: Alternative Energy Resources
7.2.5	Practice: Resource Availability
	Identify renewable resources on which humans depend. Identify nonrenewable
	resources on which humans depend. Differentiate between renewable and
	nonrenewable resources. Evaluate the cost-benefit trade-offs of using renewable
	resources instead of nonrenewable resources. Describe how the use of natural resources
	will affect future
	generations of humans. Describe alternative forms of energy production
7.2.6	Explore: Fluid-Injection Wells and Induced Seismicity
7.2.0	Explore and evaluate fluid-injection wells and induced seismicity.
7.2.7	Read: Energy and Sustainability Read
	about energy and sustainability
7.2.8	Quiz: Energy and Sustainability
7.2.9	Lab: Investigate Sustainable Energy
	Determine sustainable combinations of practices for generating and using energy.
7.2.10	Discuss: Investigate Sustainable Energy
	Analyze data by using data tables, calculating the range and average of a set of
	measurements, and identifying sources of error. Evaluate lab procedures and results in a
	discussion with your peers
UNIT 8	Apex Learning Unit Title: Pollution and Waste Management
UNITO	Apex Learning Office Policifor and waste Management
	CED Title: Unit 5: Land and Water Use; Unit 7: Atmospheric Pollution; Unit 8: Aquatic and
	Terrestrial Pollution; and Unit 9: Global Change
	Science Practices 1, 2, 3, 4, 5, 6, 7
Lesson 1	Pollution and Waste Management
8.1.1	Study: Water, Air, and Land Pollution
	Identify point sources and nonpoint sources of air, land, and water pollution. Describe
	the effects of pollution on oceans, freshwater supplies, air, and land. Recognize the
	consequences of air, land, and water pollution on human health and societies. Evaluate
	the hazards pollutants pose to wildlife and other types of natural resources.
8.1.2	Quiz: Water, Air, and Land Pollution
8.1.3	Study: Waste Management
5.1.5	Describe methods of waste management, including burial in a landfill, dumping,
	incineration, composting, recycling, and reuse. Evaluate the impact of waste
	management
	and reduction strategies on resource availability.
0 1 /	
8.1.4 8.1.5	Quiz: Waste Management  Practice: Pollution and Waste Management

Appendices page 2113 Pennwood Cyber Charter School

	T
	Identify point sources and nonpoint sources of air, land, and water pollution. Describe
	the effects of pollution on oceans, freshwater supplies, air, and land. Recognize the
	consequences of air, land, and water pollution on human health and societies. Evaluate
	the hazards pollutants pose to wildlife and other types of natural resources. Describe
	methods of waste management, including burial in a landfill, dumping, incineration,
	composting, recycling, and reuse. Evaluate the impact of waste management and
	reduction strategies on resource availability.
8.1.6	Read: Pollution and Waste Management
	Read about pollution and waste management
8.1.7	Quiz: Pollution and Waste Management
8.1.8	Lab: Investigate Recycling Practices
	Compare the effectiveness of recycling techniques.
8.1.9	Discuss: Investigate Recycling Practices
	Analyze data by using data tables, calculating the range and average of a set of
	measurements, and identifying sources of error. Evaluate lab procedures and results in a
	discussion with your peers
Lesson 2	Impacts of Pollution
8.2.1	Study: The Tragedy of the Commons
	Recognize the definition and examples of a "common." Describe how the overuse and
	degradation of natural resources affects the biosphere and human societies.
8.2.2	Quiz: The Tragedy of the Commons
8.2.3	Study: Managing the Commons
	Describe how conservation and preservation of natural resources affect their availability
	and quality. Relate conservation and preservation of natural resources to the
	sustainability
	of ecosystems and human societies.
8.2.4	Quiz: Managing the Commons
8.2.5	Study: Protecting Water, Air, and Land
	Summarize the history, provisions, and effects of the National Park Service Act.
	Summarize the history, provisions, and effects of the Clean Air Act. Summarize the
	history, provisions, and effects of the Clean Water Act. Summarize the history,
	provisions,
	and effects of the Soil and Water Resources Conservation Act.
8.2.6	Quiz: Protecting Water, Air, and Land
8.2.7	Checkup: The Concept of the Commons
0.2.7	Recognize the definition and examples of a "common." Describe how the overuse and
	degradation of natural resources affects the biosphere and human societies. Describe
	how conservation and preservation of natural resources affect their availability and
	quality. Relate conservation and preservation of natural resources to the sustainability of
	ecosystems and human societies.
8.2.8	Explore: Carbon Dioxide Sequestration
	Summarize the process of carbon dioxide sequestration and technologies that achieve it.
8.2.9	Lab: Investigate Air Quality
	Identify point source and nonpoint source causes of air pollution.
8.2.10	Discuss: Investigate Air Quality
	Analyze data by using data tables, calculating the range and average of a set of
	measurements, and identifying sources of error. Evaluate lab procedures and results in a
	discussion with your peers.
	, ,

Appendices page 2114 Pennwood Cyber Charter School

UNIT 9	Apex Learning Unit Title: Global Challenges		
	CED Titles Heit C. Ferrer Berry and Community and Heit O. Clabel Change		
	CED Title: Unit 6: Energy Resources and Consumption; and Unit 9: Global Change		
	Cataman Broatland 1 2 4 5 6 7		
Lesson 1	Science Practices 1, 2, 4, 5, 6, 7		
9.1.1	The Global Community Project: Part I — Explore Sustainability for Your Local Environment		
3.1.1	Identify your state and local legislation designed to protect the environment and		
	natural resources. Evaluate the effects of national, state, and local environmental and		
	resource protection laws on your local environment. Identify sustainable practices that		
	have been		
	adopted in your local environment. Recommend practices that might contribute to		
	the sustainability of your local environment.		
9.1.2	Study: Sustainable Societal Development		
	Explain the goal of using sustainable practices in food production, resource management,		
	and human societal development. Describe sustainable methods of food production,		
	resource management, and human societal development. Compare traditional practices		
	used in food production, resource management, and human societal development with		
	sustainable practices. Identify advantages and disadvantages of using "green" and		
	sustainable practices in food production, resource management, and human societal		
9.1.3	development.		
9.1.3	Quiz: Sustainable Societal Development Study: The Global Economy		
9.1.4	Recognize the interrelatedness of the global economy. Identify complex real-world		
	problems faced by the global economy. Evaluate possible solutions to complex real-		
	world problems in a global economy. Evaluate the need for cooperative human		
	behaviors in mitigating and preventing complex real-world problems.		
9.1.5	Quiz: The Global Economy		
9.1.6	Practice: The Global Community		
	Summarize the nature and purpose of human cultures and societies. Identify examples		
	of different types of human cultures and societies. Recognize the interrelatedness of the		
	global economy. Identify complex real-world problems faced by the global economy.		
	Evaluate possible solutions to complex real-world problems in a global economy. Evaluate		
	the need for cooperative human behaviors in mitigating and preventing complex real-		
0.4.7	world problems		
9.1.7	Read: The Global Community Read about the global community		
9.1.8	Quiz: The Global Community		
9.1.9	Lab: Investigate Human Carrying Capacity		
	Determine Earth's carrying capacity for human populations		
9.1.10	Discuss: Investigate Human Carrying Capacity		
	Analyze data by using data tables, calculating the range and average of a set of		
	measurements, and identifying sources of error. Evaluate lab procedures and results in a		
	discussion with your peers.		
Lesson 2	Global Climate Change		
9.2.1	Study: Climate Change		
	Describe effects of air pollution on the natural systems that regulate Earth's climate.  Analyze the historical trends observed in global climate data. Relate human activities to		
	observed changes in global climate. Evaluate differing views on global warming and		
	climate change		
9.2.2	Quiz: Climate Change		

Appendices page 2115 Pennwood Cyber Charter School

022	Study Effects of Climate Change
9.2.3	Study: Effects of Climate Change Summarize scientists' predictions about the effects of global climate change on the
	biosphere. Evaluate differing views on global warming and climate change
9.2.4	Quiz: Effects of Climate Change
9.2.5	Checkup: Environmental Change
3.2.3	Describe effects of air pollution on the natural systems that regulate Earth's climate.
	Analyze the historical trends observed in global climate data. Relate human activities to
	observed changes in global climate. Evaluate differing views on global warming and
	climate change. Summarize scientists' predictions about the effects of global climate
	change on the biosphere. Discuss the validity and impact of scientific research on environmental issues related to human activities.
9.2.6	Read: Global Climate Change
3.2.0	Read about global climate change
9.2.7	Quiz: Global Climate Change
9.2.8	Lab: Investigate Dissolved Oxygen Levels
5.2.0	Explore dissolved oxygen levels
9.2.9	Discuss: Investigate Dissolved Oxygen Levels
JJ	Analyze data by using data tables, calculating the range and average of a set of
	measurements, and identifying sources of error. Evaluate lab procedures and results in a
	discussion with your peers
Lesson 3	Global Environmental Policies
9.3.1	Study: Protecting Environmental Quality
	Summarize the goals and provisions of international treaties and protocols that address
	the effects of human activities on the environment, including the Antarctic Treaty
	System, Montreal Protocol, and Kyoto Protocol. Evaluate the effects of international
	treaties and protocols on environmental quality and global cooperation.
9.3.2	Quiz: Protecting Environmental Quality
9.3.3	Study: Protecting Wildlife and Biodiversity
	Summarize the goals and provisions of international treaties and protocols that address
	biodiversity, such as the United Nations' Convention of International Trade in
	Endangered Species (CITES), the RAMSAR Convention on Wetlands, the International
	Treaty on Plant Genetic Resources for Food and Agriculture, and the Convention on
	Biological Diversity. Evaluate the effects of international treaties and protocols on
	environmental
	quality and global cooperation.
9.3.4	Quiz: Protecting Wildlife and Biodiversity
9.3.5	Practice: Global Environmental Policies
	Summarize the goals and provisions of international treaties and protocols that address
	the effects of human activities on the environment, including the Antarctic Treaty
	System, Montreal Protocol, and Kyoto Protocol. Summarize the goals and provisions of
	international treaties and protocols that address biodiversity, such as the United
	Nations' Convention of International Trade in Endangered Species (CITES), the RAMSAR
	• • • • • • • • • • • • • • • • • • • •
	Convention on Wetlands, the International Treaty on Plant Genetic Resources for Food
	and Agriculture, and the Convention on Biological Diversity. Evaluate the effects of
	international treaties and protocols on environmental quality and global cooperation.
	Discuss the validity and impact of scientific research on environmental issues related to
	human activities.
9.3.6	Read: Global Environmental Policies
0.0.7	Read about global environmental policies
9.3.7	Quiz: Global Environmental Policies

Appendices page 2116 Pennwood Cyber Charter School

Explore: Biodiversity Hot Spots
Summarize the process of natural selection and its role in biological evolution. Explain the
importance of biodiversity in the biosphere.
Global Challenges Wrap-up
Project: Part II — Explore Sustainability for Your Local Environment
Identify your state and local legislation designed to protect the environment and
natural resources. Evaluate the effects of national, state, and local environmental and
resource protection laws on your local environment. Identify sustainable practices that
have been
adopted in your local environment. Recommend practices that might contribute to the sustainability of your local environment.

#### **CR 4: Science Practice 1: Concept Application**

- Unit 2: Lesson 1: Activity 6: Practice: The Hydrosphere
  - In this practice activity, students are asked to describe the causes and effects of ocean waves and tides.
- Unit 3: Lesson 1: Activity 8: Practice: The Nature of Ecosystems
  - In this practice activity, students are asked to explain what would happen in the scenario provided:
    - In a mangrove swamp, mangrove tree crabs consume the leaves of mangroves and are food for other animals. By eating decaying mangrove leaves, animal wastes, and dead animals, they help create detritus that forms the base of many of the swamp's aquatic food chains. In addition, they burrow in the wet soil, which mixes air containing oxygen with the soil. What is likely to happen to the stability of the community if a disease destroys the population of mangrove tree crabs?
- Unit 6: Lesson 1: Activity 2: Study: Land and Water Resources
  - Students answer the question "What would be a negative consequence of transporting water through a hot, dry desert in open canals?" after viewing a picture of the Granite Reef Diversion Dam near Mesa, Arizona.

#### **CR 5: Science Practice 2: Visual Representations**

- Unit 1: Lesson 2: Activity 7: Practice: Matter and Energy in the Biosphere
  - In this practice activity students are asked to both draw and label the various biogeochemical cycles. They are asked to indicate where certain components of the cycles are and answer questions explaining portions of the cycles.
- Unit 4: Lesson 1: Activity 3: Study: Population Growth
  - Students use an interactive tool to create representations of a population of prairie dogs experiencing a variety of limiting factors. They are then asked to answer the following question:
    - how is this graph different from the one you saw when resources were unlimited, and what does this mean?

# **CR 6: Science Practice 3: Text Analysis**

- Unit 2: Lesson 1: Activity 1: Project: Part I Explore Your Local Physical Environment
  - In this project, students make and record observations about the geology, hydrology, and climate in the area in which they live. Use the Internet to research your area and collect data. Analyze your observations and data. They are asked to visit various provided websites and are charged with determining which websites they deem reliable sources of information and those that are not reliable sources. They are also asked to defend their selections.
- Unit 6: Lesson 2: Activity 8: Explore: Effects of Climate Change
  - Students read multiple articles by visiting provided websites and answer questions regarding the information within. The following question requires students to consider the author's purpose and reasoning.
    - What type of questions were the researchers asking in order to determine whether the wildlife management techniques were effective?

- Unit 4: Lesson 3: Activity 8: Lab: Investigate Resource Consumption
  - $\circ\quad$  Students are asked to write a scientific question, a hypothesis that would test it,

and design an experiment including independent variables, dependent variables, and constants. They are asked to write their procedures and create their data tables. Finally, they carry out their designed experiment, record their data, and analyze their results.

- Unit 8: Lesson 1: Activity 8: Lab: Investigate Recycling Practices
  - Students research their local recycling center, collect items they think are recyclable from their home, create an experiment to test their own hypothesis, gather data, and draw conclusions. Student questions are provided below:
    - Write a hypothesis that states the percentage of the items that you think will be accepted by your local recycling center.
    - Did your results support or refute your hypothesis? Use data to support your answer.

## **CR 8: Science Practice 5: Data Analysis**

- Unit 6: Lesson 1: Activity 1: Project: Part I Explore Your Local Environmental Challenges
  - Students conduct research both online and from print resources to learn more about their local environmental challenges. They are asked several questions regarding their research and the connections to their local community.
    - Look up the population growth in your area. How has the population changed in the last 20 years? 50 years? How do you think this impacts your environment?
- Unit 8: Lesson 2: Activity 9: Lab Investigate Air Quality
  - Students research air pollution from a website, specifically in their zip code. They write a hypothesis for a situation that would cause a change in the air quality rating for their local area. They then test their hypothesis using the website and are asked the following questions:
    - What patterns did you notice in the data you collected in Part 1? Did any of those patterns support or refute your hypothesis? How? Be sure to include numbers in your analysis.

#### **CR 9: Science Practice 6: Mathematical Routines**

- Unit 3: Lesson 3: Activity 8: Lab: Investigate Primary Productivity
  - While completing the conclusions portion of the lab, students are asked to calculate net primary productivity in the following scenario:
    - If NPP is the net increase in biomass per unit of area per unit of time, calculate the NPP of each biome.
- Unit 7: Lesson 1: Activity 8: Lab: Investigate Home Energy Use
  - Students are asked to calculate the kilowatt hours each appliance in their home uses in a day, then use that calculation to determine both the monetary cost to them and the environmental cost.
    - Using your data collected in Part 2, calculate the amount of energy (in kilowatt-hours) each appliance uses in a day, the cost to you (in dollars), and the cost to the environment (in pounds of CO2 produced to generate that amount of electricity).
- Unit 9: Lesson 1: Activity 9: Lab: Investigate Human Carrying Capacity
  - Students are asked to research 7 different regions in terms of population.
     They first gather data about life expectancy, number of children per woman, and the sex ratio. They then then record the same data after



#### **CR 10: Science Practice 7: Environmental Solutions**

- Unit 1: Lesson 1: Activity 9: Lab: Investigate your Ecological Footprint
  - Students are asked to use a website to determine their ecological footprint. They are then charged with identifying three things that they could change that would decrease their footprint, developing a hypothesis, making the changes, gathering new data, and then analyzing that data.
- Unit 7: Lesson 2: Activity 10: Discuss: Investigate Sustainable Energy
  - In this discussion students are asked to answer questions to prepare for their online discussion with classmates. One of the questions is listed below:
    - Some of the opponents of biodiesel say that it is impractical because it currently costs more to make and distribute than traditional diesel. This is because the processes are new and there are not as many pumping stations. What do you think about this? Should biodiesel be made more common or not? Why?

#### **CR 11: Lab Investigations**

Apex Learning's AP Environmental Science course consists of 16 hands on labs, this will encompass 25% of the time spent in the course. Many of the labs have an inquiry-based and/or a field work component to them that gives students the freedom to design and investigate on their own and work hands on with the discipline.

Any lab calling for inquiry or field work in indicated below as well as a description of the learning objective within.

Each unit contains 2 labs. Below is a summary of each:

Lab	Lab Title	Learning Objective	Other
1	Investigate Your	Students collect data about their life and	Inquiry
	Ecological	resource consumption to measure their current	
	Footprint	ecological footprint. Then they calculate a value	
		for their ecological footprint, which represents	
		the amount of land required to provide all the	
		natural resources they use. Next, they form a	
		hypothesis about three changes they can make in	
		their lifestyle to reduce their ecological footprint	
		and then calculate the difference those changes	
		would	
		make.	
2	Investigate	In this lab, students observe the release of O2	
	Cycling of O2	and CO2 into the environment. Gas production	
	and CO2	by two types of organisms will serve as evidence	
		of photosynthesis and cellular respiration in	
		action. In part 1, they vary the amount of sugar	
		present and observe the effect on cellular	
		respiration.	
		They also observe how the rates of these	
		processes vary as environmental conditions vary.	
		In part 2, they vary the amount of light and	

		observe the effect on photosynthesis.	
		observe the effect off photosynthesis.	
3	Investigate Watershed Analysis	Students investigate their local watershed. First, they use government data to research features of the local area of the watershed, and then they identify a source of water in their watershed and test it at three different points.	
4	Investigate Passive Heating and Cooling	This lab requires students to research ideas and then model how provided factors affect the heating and cooling of a home. First, they build a home without any energy-saving improvements. Then they change the home design to be more energy-efficient. They test both homes and evaluate their energy efficiency by measuring temperature changes in each when they are exposed to a	Inquiry
5	Investigate Using a Dichotomous Key	warming source of light.  Students observe an insect and describe it. After that, they go to a website and use a dichotomous key to identify the insect based on its characteristics. They then select a leaf from a tree in their area and identify the tree using a different website.	Field Work
6	Investigate Primary Productivity	In this lab, students collect data and samples of plant matter in order to measure the NPP of two simulated biomes. After determining the net productivity of two model biomes, the desert and the rain forest, they calculate gross productivity and analyze how the different situations lead to different productivities.	Field Work
7	Investigate Estimating Population Size	Students use a technique for capturing, marking, and recapturing small invertebrates such as insects, snails, or pill bugs that live in their local area. Then they run a capture-and-recapture simulation and perform some calculations to determine the accuracy of capture-and-recapture studies of population size.	Field Work
8	Investigate Resource Consumption	Students model resource consumption using cereal and spoons. They then design their own simulation and make some inferences about resource consumption in the real world. They imagine that the cereal they are using is a real resource.	Inquiry

Appendices page 2123 Pennwood Cyber Charter School

	T		La accident
9	Investigate How	During this lab, students test concentrations of	Inquiry
	Pollutants	the salt NaCl on germinating radish seedlings.	
	Affect Plants	They then make a hypothesis about the effects of	
		other	
		pollutants on plant germination and design an experiment to test the hypothesis.	
10	Investigate Food	Students assemble a list of foods, then identify the	
	Security	processing plants they come from. They then	
	o country	determine how far the food traveled to get to them,	
11		and identify the impacts of that journey.	
11	Investigate Home	This lab requires students to look at their monthly	
	Energy Usage	electricity bill and evaluate their home's energy	
		usage. Students analyze their appliances, which	
		can be rated using various terms. They also	
		calculate kilowatt hours, watts, and cost per kilowatt hour.	
12	Investigate	In this lab, students make crude biodiesel by	
	Sustainable	reacting vegetable oil with methanol and a catalyst	
	Energy	(KOH or NaOH). They then separate biodiesel and	
		the by-product (glycerin), measure the yield of	
13	la care d	each, and answer questions about the process.	1
13	Investigate	Students collect the glass, metal, plastic, and paper	Inquiry
	Recycling Practices	items in their home that they think are recyclable.	Field Work
	Practices	Then they analyze the items according to the local recycling guidelines and reevaluate them for proper	
		recycling or disposal.	
14	Investigate Air	Students complete two investigations of the air	Inquiry
	Quality	quality in their local area, including data research	Field Work
		and a field investigation. First, they use an air	
		pollution website to research their local types	
		and levels of air pollution and then use data to	
		test a hypothesis about the local air pollution	
		patterns. They then observe bioindicator plants	
		in their	
		neighborhood to look for signs of damage from air	
4.5		pollution.	
15	Investigate	Students learn how to use a simulation to explore	
	Human Carrying	population growth and population pyramids. They	
	Capacity	then research current estimates for different	
		factors on global, regional, and local levels and	
		apply those conditions to the simulation to	
		observe how they affect population growth.	
		Finally, they alter the factors in the simulation to observe how population	
		growth and population pyramids can change.	
16	Investigate	Students set up an experiment to determine how	Inquiry
	Dissolved	different levels of a pollutant affect the amount of	
	Oxygen Levels	dissolved oxygen in a water sample. To detect DO,	
		they use methylene blue. They use yeast to model	
		the microorganisms and milk to model the	
		pollutant. They then design an experiment to test	
		how temperature affects DO levels. These	
		procedures allow them make a model to simulate	
		what happens in aquatic systems.	

Appendices page 2124

In addition to the labs listed above, students complete a two-part project requiring them to explore their local physical environment that requires multiple sessions of field work. At eight different points throughout the course, they will re-visit their project to either check their accuracy or add another layer of investigation data.

Project Part I: Explore Your Local Physical Environment

- Unit 2: Lesson 1: Activity 1
  - Research and describe the physical features and abiotic factors that characterize the geographical area in which you live.
- Unit 3: Lesson 1: Activity 1
  - Recognize the major types of biotic factors in an ecosystem and their roles in the biosphere. Distinguish biological species, populations, and communities. Identify the abiotic factors in an ecosystem and their importance to living organisms. Explain how biotic factors interact with the abiotic factors of an ecosystem.
- Unit 6: Lesson 1: Activity 1
  - Research and describe environmental challenges that affect the geographical area in which you live
- Unit 9: Lesson 1: Activity 1
  - Identify your state and local legislation designed to protect the environment and natural resources. Evaluate the effects of national, state, and local environmental and resource protection laws on your local environment. Identify sustainable practices that have been adopted in your local environment. Recommend practices that might contribute to the sustainability of your local environment.

Project Part II: Explore Your Local Physical Environment

- Unit 2: Lesson 4: Activity 1
  - o Research and describe the physical features and abiotic factors that characterize the

geographical area in which you live.

- Unit 3: Lesson 4: Activity 1
  - Recognize the major types of biotic factors in an ecosystem and their roles in the biosphere. Distinguish biological species, populations, and communities. Identify the abiotic factors in an ecosystem and their importance to living organisms. Explain how biotic factors interact with the abiotic factors of an ecosystem.
- Unit 6: Lesson 4: Activity 1
  - Research and describe environmental challenges that affect the geographical area in which you live.
- Unit 9: Lesson 4: Activity 1
  - Identify your state and local legislation designed to protect the environment and natural resources. Evaluate the effects of national, state, and local environmental and resource protection laws on your local environment. Identify sustainable practices that have been adopted in your local environment. Recommend practices that might contribute to the sustainability of your local environment.

## **CR 12: Evidence of Scientific Investigations**

In this AP Environmental Science course, each student is expected to maintain a lab notebook that contains each of their lab reports collectively.

Each lab requires students to compile data, draw conclusions and justify their thinking. Although each of the 16 labs lends itself to various levels of scientific thinking, there are some commonalities to the evidence and conclusions that students are expected to document. Details are listed in the table below.

Lab	Lab Title	Lab Components
1	Investigate Your	Calculate
	Ecological Footprint	Summarize
		Create a Hypothesis
		Data Recording
		Analyze
		Draw Conclusions
2	Investigate Cycling of O2	Observe
	and CO2	Data Recording
		Analyze
		Draw Conclusions
		Suggest a new
		Question
3	Investigate	Data Recording
	Watershed Analysis	Analyze
		Draw Conclusions
4	Investigate Passive	Research
	Heating and Cooling	Build
		Data Recording
		Analyze
		Draw Conclusions
5	Investigate Using a	Data Recording
	Dichotomous Key	Analyze

		Draw Conclusions
		2.417 5511514515115
6	Investigate Primary	Data Recording
	Productivity	Analyze
	,	Draw Conclusions
7	Investigate Estimating	Capture and Re-
	Population Size	capture
		Data Recording
		Analyze
		Draw Conclusions
8	Investigate Resource	Model
	Consumption	Design your Own
		Experiment
		Analyze
9	Investigate User	Draw Conclusions
3	Investigate How	Data Recording
	Pollutants Affect Plants	Design your Own
		Experiment
		Analyze
10		Draw Conclusions
10	Investigate Food	Assess
	Security	Data Recording
		Calculate
		Analyze Draw Conclusions
11	Investigate Home	Research
	Energy Usage	Data Recording
	Lifeigy Osage	Analyze
		Draw Conclusions
12	Investigate Sustainable	Observe
	Energy	Data Recording
		Analyze
		Draw Conclusions
		Predict
13	Investigate Recycling	Collect
	Practices	Research
		Data Recording
		Analyze
		Draw Conclusions
14	Investigate Air Quality	Research
		Create a Hypothesis
		Data Recording
		Analyze
1 -	1	Draw Conclusions
15	Investigate Human	Research
	Carrying Capacity	Compare Data
		Data Recording
		Analyze
		Draw Conclusions

16	Investigate Dissolved	Data Recording
	Oxygen Levels	Design your Own
		Experiment
		Analyze
		Draw Conclusions

# **AP Human Geography**



# **AP Human Geography Syllabus**

Scoring Component	Page(s)
SC 1 The course provides a systematic study of the nature of geography.	5, 6
SC 2 The course provides a systematic study of perspectives of geography.	5, 6
SC 3 The course provides a systematic study of population geography.	6, 7
SC 4 The course provides a systematic study of cultural patterns and processes.	7, 8, 9
SC 5 The course provides a systematic study of political organization of space.	9. 10
SC 6 The course provides a systematic study of agriculture and rural land use.	11, 12
SC 7 The course provides a systematic study of industrialization and economic development.	12, 13
SC 8 The course provides a systematic study of cities and urban land use.	14, 15
SC 9 The course teaches the use of landscape analysis to examine human organization of space.	5, 6
SC 10 The course teaches spatial relationships at different scales ranging from the local to the global	6, 9, 10, 12, 13
SC 11 The course teaches students how to use and interpret maps and spatial data.	5, 6, 8, 9, 15
SC 12 The course teaches students how to use and interpret geographical models.	6, 11, 12, 14

Big Ideas and Course Skills	Page(s)
Big Idea 1: Patterns and Spatial Organization (PSO)	7
The course teaches that spatial patterns and organization of human society are arranged according to political, historical, cultural, and economic factors.	
Big Idea 2: Impacts and Interactions (IMP)	6
The course teaches that complex relationships of cause and effect exist among people, their environments, and historical and contemporary actions.	

Appendices page 2130 Pennwood Cyber Charter School

Big Idea 3: Spatial Process and Societal Change (SPS)	11
The course teaches that a spatial perspective allows for a focus on the ways phenomena are related to one another in particular places, which in turn allows for the examination of human organization and its environmental consequences	

CS 1 The course teaches students how to analyze geographic theories, approaches, concepts, processes, or models in theoretical and applied contexts.	5, 6, 8, 11, 14
CS 2 The course teaches students how to analyze geographic patterns, relationships, and outcomes in applied contexts.	7, 9, 11
CS 3 The course teaches students how to analyze and interpret quantitative geographic data represented in maps, tables, charts, graphs, satellite images, and infographics.	5, 6, 11, 12, 15
CS 4 The course teaches students how to analyze and interpret qualitative geographic information represented in maps, images (e.g., satellite, photographs, cartoons), and landscapes.	5, 8, 9
CS 5 The course teaches students how to analyze geographic theories, approaches, concepts, processes, and models across geographic scales to explain spatial relationships.	6, 9, 12, 13

# **Course Summary**

The AP® Human Geography course will provide high school students with college- level instruction in using a spatial perspective to study how humans understand and use Earth's surface. Students will become skilled in interpreting maps and geospatial data in order to draw conclusions about what is revealed and hidden.

Students will hone their analysis skills by learning to recognize, interpret, and assess patterns related to population, culture, and politics. Students will also consider how regions develop, including agriculture versus urban land use issues. This course is presented thematically by exam topic to reinforce that regions cannot be considered in isolation. This course will effectively prepare students for the AP exam by practicing the skills necessary to apply geographic concepts, interpret data, and synthesize information in both multiple choice and constructed response formats.

#### **Course Units**

#### Semester A

- Unit 1: Course Overview
- Unit 2: This Is Geography
- Unit 3: Population and Health
- Unit 4: Migration
- Unit 5: Folk and Popular Culture
- Unit 6: Mid-Semester Check
- Unit 7: Language and Religion
- Unit 8: Ethnicities
- Unit 9: Political Geography
- Unit 10: Semester Exam

#### Semester B

- Unit 1: Course Overview
- Unit 2: Food and Agriculture
- Unit 3: Development
- Unit 4: Industry and Energy
- Unit 5: Mid-Semester Check
- Unit 6: Services and Settlements
- Unit 7: Urban Patterns
- Unit 8: Review and Full-Length
   Practice Exam
- Unit 9: Semester Project
- Unit 10: Semester Exam

## **Resource Requirements**

Rubenstein, James M. *The Cultural Landscape: An Introduction to Human Geography*. 12th ed., Pearson Education, Inc., 2017.

The course and online textbook provides a collection of maps, atlases, and other resource materials for use by students. Each chapter includes an Explore feature using Google Earth to aid students in analyzing and interpreting maps.

### **Online Resources**

EBSCOhost Research Database https://www.ebsco.com/products/research- databases

Google Earth https://www.google.com/earth/ Khan Academy

https://www.khanacademy.org Library of Congress

https://www.loc.gov

National Oceanic and Atmospheric Administration https://www.noaa.gov

## **Writing Assignments**

In each lesson, students respond to questions about the textbook readings and other resources in a notebook. Students also complete longer portfolio writing assignments that require them to synthesize lesson content from across lessons and resources to analyze certain exam topics in-depth.

#### **Assessments**

Throughout the course, a variety of formative and summative assessments are used to assess student learning and prepare students for the expectations of the AP Human Geography exam. Students are provided with ample opportunity for skill practice, engagement in meaningful discourse with their peers, and application of their understanding via tasks that are representative of real-world scenarios. Summative assessment types lend themselves to a deeper level of rigor and include portfolios and discussions. Formative assessments are designed to be auto-graded to give students and teachers instant feedback for targeted instruction.

Most lessons contain a quick check assessment that covers the objectives in the lesson, and most units have at least one cumulative quiz that also assesses lesson objectives. Each instructional unit culminates in an online practice to help students review unit concepts and skills, followed by a unit test that consists of multiple choice and short answer and/or essay questions. To aid students in retaining content throughout the course of a semester, a mid-semester check unit appears in the middle of each semester, featuring a low-risk practice assessment covering the objectives learned up to that point during the semester.

A graded full-length practice exam in the style of the Human Geography exam is given at the end of Semester B. Each semester ends with a semester exam.

Most units feature a discussion or portfolio that promotes critical thinking by expanding on topics students have learned. Each semester ends with a semester project and a semester exam. Graded assessments and participation all count toward the student's final grade.

#### **Course Outline**

#### Semester A

## **Unit 1: Course Overview**

In this unit, students will do the following:

- Acquaint themselves with the goals and expectations of the course.
- Ensure they have the required materials for the course.
- Learn about the types of activities that will appear in the course.

#### **Unit 2: This Is Geography**

In this unit, students will do the following:

- Evaluate the nature of geography and what it means to examine the world from a spatial perspective. [SC 1]
- Apply major geographical perspectives and concepts to examine issues. [SC 2, CS 1.A]
- Apply landscape analysis and spatial thinking to describe how humans organize space.
   [SC 9]
- Interpret maps and geospatial data. [SC 11, CS 3, CS 4]
- Interpret quantitative and qualitative data. [CS 3, CS 4]
- Apply quantitative and qualitative data to explain geographic patterns and processes. [CS 3, CS 4]

#### Sample activities in this unit:

- Students will apply what they have learned about the perspectives of geography shown in different representations of Earth. In an activity, students will conduct research to analyze how the representation of Earth as a globe as opposed to a flat map (Mercator projection) affects their perception of the size of countries and continents. Using their research, they will describe what it means to examine the world from a spatial perspective. [SC 1 and SC 11, CS 1.A]
- Students will practice interpreting maps presented in *The Cultural Landscape* and geospatial data by applying what they have learned about the elements of maps and geographic information science. [CS 3.A, CS 4.A, CS 4.F] In an activity, students will draw a mental map depicting the route between two familiar places and labeling prominent features. They will examine the map to identify which features could be identified using remote sensing and which would require ground truthing. Then, they will compare their mental map with an online mapping service to determine the role of geographic information science in the online map and how accurate their mental map is. [SC 1 and SC 11, CS 1.C]
- Students will evaluate the geographic concept of globalization. In a discussion, students will consider the connections between globalization and local diversity, using examples from their local hometown or region, in order to take a stance on whether globalization is good or bad and to support their opinion with evidence. [SC 2]
- Students will use landscape analysis on a familiar location. In an activity, students will describe how the landscape of their hometown is organized through cultural features and examine any instances of economic inequality or unequal access in the organization. [SC 9]

• Students will use spatial thinking to consider maps at a variety of scales. In a series of activities, students will examine maps of Dubai and use each map's scale to interpret the information shown in the map. Then, they will use a list of geographic coordinates as geospatial data to identify the cities found in those locations. [SC 9, SC 10, and SC 11, CS 5.A, CS 5.B, CS 5.C]

Required reading: *The Cultural Landscape*, Chapter 1: This is Geography [SC 1 and SC 2, CS 1, CS 3, CS 4, CS 5]

## **Unit 3: Population and Health**

In this unit, students will do the following:

- Describe physical and human factors that influence population geography. [SC 3]
- Evaluate the influence of geographic patterns and characteristics on cultural, political, economic, and urban systems.
- Analyze the growth and decline of populations over time and space. [CS 3]

## Sample activities in this unit:

- Students will analyze population composition. In an activity, students will conduct research
  online, using sites such as the U.S. Census Bureau, to create a modified population pyramid
  using data from their state or city. The population pyramid will represent three groups: people
  over 65, people under 18, and the remaining population. Students will use the data and
  pyramid to calculate the elderly support ratio. [SC 3, CS 3.C, CS 3.E]
- Students will apply what they learned about the demographic transition model to the history of
  the United States. In a series of activities, students will explain when the United States shifted
  to stage 2 and stage 3. Then, students will compare their explanations to graphs showing the
  demographic transition for three other countries and describe the patterns and relationships
  they observe. [SC 3 and SC 12, CS 1.D, CS 3.B]
- Big Idea 2: Students will explain contemporary and historical trends in population growth and
  decline. In a portfolio, students will write an essay that analyzes Japan's population changes,
  including the causes, and compares its situation to that of other countries. Using evidence
  gathered from the internet and reference books about Japan and other countries, they will
  analyze how overall population changes affect health and sustainable practices. [SC 3, CS 3.D]

Required reading: The Cultural Landscape, Chapter 2: Population and Health [SC 3, CS 1, CS 3]

#### **Unit 4: Migration**

In this unit, students will do the following:

- Analyze the cultural and demographic causes and effects of migration. [SC 3, CS 2]
- Evaluate the economic push and pull factors that result in migration. [CS 2]
- Assess how much political and environmental factors influence migration. [CS 2]

## Sample activity in this unit:

Big Idea 1: Students will explain how push and pull factors contribute to migration, and analyze the cultural, economic, environmental, and political consequences of migration. [CS 2.A] In an activity, students will read a fictional scenario about a family's migration, identify the push and pull factors that influence the choice to leave a homeland, and analyze the obstacles that might prevent the family's efforts to leave. [SC 3, CS 2.B]

Required reading: The Cultural Landscape, Chapter 3: Migration [SC 3, CS 2]

## **Unit 5: Folk and Popular Culture**

In this unit, students will do the following:

- Examine the various definitions of culture.
- Examine cultural differences and regional patterns. [CS 2]
- Describe cultural patterns and processes. [SC 4] Sample

#### activities in this unit:

- Students will compare and contrast popular and folk culture and the geographic processes
  associated with each. In an activity, students will design a logo for a new social media
  company whose main objective is to resurrect or preserve folk cultures. Students will
  describe the symbol's design, how it represents the company mission, and how it will
  spread company values, as well as how the company may impact the existing popular or
  folk cultures, and possible consequences. [SC 4]
- Students will explain how culture is expressed in landscapes and how land and resource use represent cultural identity. In an activity, students will synthesize information from the unit and cite examples from various cultures or time periods to write an explanation of how geography impacts the ways in which culture develops. [SC 4, CS 2.D]

Required reading: The Cultural Landscape, Chapter 4: Folk and Population Culture [SC 4, CS 2]

#### **Unit 6: Mid-Semester Check**

In this unit, students will do the following:

• Demonstrate knowledge that they have learned from the beginning of the course by completing a graded mid-semester check in the style of the AP Human Geography exam.

#### **Unit 7: Language and Religion**

In this unit, students will do the following:

- Analyze how languages affect culture.
- Evaluate how languages vary by place and region. [SC 4, CS 1, CS 4]
- Analyze how religions affect culture.
- Evaluate how religions vary by place and region. [SC 4]

#### Sample activities in this unit:

- Students will explain the cultural patterns and landscapes related to languages, and evaluate hypotheses of language distribution. [CS 1.E] In an activity, students will research the origin of a language, such as Esperanto, Cornish, or Ket. Students will trace the origin of the language and explain whether the language migrated with its people to or from other parts of the world, and whether it is still spoken today. [SC 4]
- Students will explain the cultural patterns and landscapes related to religion. In an activity, student will examine a map from *The Cultural Landscape* illustrating the most numerous religions by country and world region. Students will use evidence from this map to explain how religions spread, including the ideas of diffusion and distribution. [SC 4 and SC 11, CS 4.B, CS 4.C, CS 4.D, CS 4.E]

Required reading: *The Cultural Landscape*, Chapter 5: Languages and Chapter 6: Religions [SC 4, CS 1, CS 4]

## **Unit 8: Ethnicities**

In this unit, students will do the following:

- Analyze how ethnic differences affect culture.
- Evaluate how ethnicities vary by place and region. [SC 4, CS 4]

### Sample activities in this unit:

- Students will use maps and cartograms from *The Cultural Landscape* to assess the spatial and place dimensions of cultural groups in the past and present. [CS 4.E] In a series of activities, students will conduct research on a selected ethnicity in order to describe what makes this ethnicity unique and where it is distributed. Then, students will extend their research by describing any conflicts this ethnicity has had with others and why. They will also explain how geographic analytic tools can provide evidence in ethnic conflicts, noting any limitations to the tool's use. [SC 4, SC 2.E]
- Students will analyze the impacts of diffusion as related to ethnicities. In an activity, students
  will write an analysis of articles from the United Nations related to ethnic separation, ethnic
  cleansing, and diversity. [SC 4]

Required reading: The Cultural Landscape, Chapter 7: Ethnicities [SC 4, CS 2, CS 4]

#### **Unit 9: Political Geography**

In this unit, students will do the following:

- Evaluate how the contemporary political map has been shaped by events of the past. [SC 5 and SC 11]
- Examine how spatial political patterns reflect ideas of territoriality and power at a variety of scales. [SC 10, CS 2, CS 5]
- Analyze how the forces of globalization challenge contemporary political
   – territorial
   arrangements.

#### Sample activities in this unit:

- Students will analyze the spatial relationships between political systems and patterns of
  culture and economy. In a series of activities, students will analyze the current situations
  regarding the Northern Ireland border and Brexit negotiations as well as Cyprus. They will
  compare and contrast the effect of the cultural borders in these two regions. [SC 5, CS 2.B]
- Students will evaluate the role and efficacy of political boundaries on different scales. [CS 5.C]
  In a portfolio, students will write an argumentative essay about who should create political
  boundaries and how disputes should be solved. Students will include specific examples and
  describe problematic situations regarding border disputes as well as situations in which
  problems were successfully resolved. Students will use evidence from independent research to
  support their thesis statements. [SC 5 and SC 10]

Students will explain how the political, economic, cultural, and technological elements of
globalization challenge state sovereignty. In a series of activities, students will read an article
about Qatar's position on United Nations peacekeeping efforts. Then, students will research
how the UN Charter is being (or has been) implemented in another country they select. Finally,
students will compare the UN Charter in these two countries (Qatar and the other country they
selected). [SC 5]

Required reading: *The Cultural Landscape*, Chapter 8: Political Geography [SC 5]

## **Unit 10: Semester Exam**

In this unit, students will do the following:

- Review all topics covered this semester.
- Demonstrate knowledge by completing a graded semester exam written in the style of the AP Human Geography exam.

#### Semester B

#### **Unit 1: Course Overview**

In this unit, students will do the following:

- Acquaint themselves with the goals and expectations of the course.
- Ensure they have the required materials for the course.
- Learn about the types of activities that will appear in the course.

#### **Unit 2: Food and Agriculture**

In this unit, students will do the following:

- Evaluate the effects of agricultural development on the natural environment.
- Analyze how major agricultural regions reflect physical geography and economic factors. [SC 6]
- Analyze how settlement patterns and rural land use are reflected in the cultural landscape. [SC 6]
- Evaluate the societal effects of changes in food production and consumption.

#### Sample activities in this unit:

- Big Idea 3: Students will analyze agricultural production and rural land use as well as the
  interdependence among regions. In an activity, students will read an article about rice growers in
  the United States and compare the agricultural processes in this country with those in
  developing Asian countries. They will describe the challenges and benefits of producing rice in
  California for export to Japan, how cultivation differs in low-density areas compared to highdensity areas, how a region affects the agricultural practices there, and potential consequences
  due to population changes. [SC 6]
- Students will analyze the application of von Thünen's land use model to agricultural production. In an activity, students will apply what they have learned about agribusiness and commercial agriculture to explain the guiding principle of von Thünen's model and what other factors a farmer might consider in addition to the model when selecting a type of agriculture to practice. [SC 6 and SC 12, CS 1.B, CS 1.D, CS 1.E]
- Students will use the EBSCOhost research databases and other sources to analyze issues related to the changing nature of contemporary agriculture, and predict how current trends will affect agriculture. [CS 2.C, CS.3.F] In a portfolio, students will write an essay in which they take a stance on the role of biotechnology in agriculture. In their essay, students will clearly state a

position in a thesis statement, describe how biotechnology is used in agriculture, support their position with specific examples and evidence, and present and refute important arguments against their position. [SC 6]

Required reading: The Cultural Landscape, Chapter 9: Food and Agriculture [SC 6, CS 1, CS 2, CS 3]

## **Unit 3: Development**

In this unit, students will do the following:

- Assess how the Industrial Revolution facilitated improvements in standards of living.
- Apply measures of development to understand patterns of social and economic differences at a variety of scales. [SC 10, SC 5]
- Explain why development is a process that varies across space and time. [SC 7]

## Sample activities in this unit:

- Students will assess the availability of inequality-adjusted human development data gathered from the United Nations. [CS 3.F]
- Students will apply measures of development and the standard of living to understand the
  difference between "developed" and "developing" countries. In a series of activities, students
  will choose one developed country and one developing country from a list. Students will
  conduct research and explain why each is considered developed or developing. Then, students
  will choose one of the measures of standard of living, conduct research to find the
  current measurement for the two countries, and explain the factors that have impacted each
  measurement. [SC 7 and SC 10]
- Students will study Rostow's economic development model and apply it to a local area. During
  instruction, students will read about this model, study an image of a festival in
  Chichicastenango in Guatemala and explain which of Rostow's stages of development is
  shown. [SC 7 and SC 12]
- Students will study Weber's industrial location model and apply it to a local industry. During
  instruction, students will read about Weber's "least-cost" theory and use a local industry to
  explain whether it matches Weber's model of industrialization. [CS 5.D] Then, students will
  explain what factors other than access to raw materials may determine the particular location
  of an industry.[SC 7 and SC 12]

- Students will analyze the causes and consequences of international trade and growing interdependence in the world economy. In a discussion, students will consider the benefits to fair trade and weigh them against the costs.
- Students will cite evidence to support their opinion and explain how they will address any counterarguments. [SC 7]

Required reading: The Cultural Landscape, Chapter 10: Development [SC 7, CS 3, CS 5]

## **Unit 4: Industry and Energy**

In this unit, students will do the following:

- Assess the strengths and weaknesses of sustainable development.
- Apply the strategy of sustainable development to address resource depletion and environmental degradation.
- Evaluate how factors like situation and site affect how and where industry develops. [SC 7]

### Sample activities in this unit:

- Students will analyze industrial location on a regional scale. In an activity, students will consider how weather conditions influence the choice of a factory site between the North and the South in the United States. Students will choose an industry and a corresponding factory site. Depending on the location, students will explain the impact of weather events, the transportation options available, and the benefits of choosing another location or multiple locations. [SC 7 and SC 10, CS 5.C]
- Students will analyze international trade and industrialization globally. In an activity, students will research the labels on their clothing for the countries of origin and production locations in those countries. Students will reflect on what they discovered about these industrial locations. [SC 7, CS 5.C]
- Students will analyze industrial locations on a local scale. In an activity, students will describe the
  industries located in their state, the factors that have attracted industries there, and the challenges
  these industries face. [SC 7 and SC 10,
  CS 5.C]
- Students will analyze sustainability issues related to industrialization and development. In a
  discussion, students will consider the benefits and costs of buying domestic versus foreign-made
  clothes. Students will select one role (American manufacturer, Canadian government, or Mexican
  worker) and present this role's perspective toward NAFTA. Then, students will take on the role of
  EPA agents and re-evaluate NAFTA from that role's perspective. [SC 7]

Required reading: The Cultural Landscape, Chapter 11: Industry and Energy [SC 7, SC 5]

#### **Unit 5: Mid-Semester Check**

In this unit, students will do the following:

- Review the topics that they have learned from the beginning of this semester.
- Demonstrate knowledge by completing a graded mid-semester check in the style of the AP Human Geography exam.

## **Unit 6: Services and Settlements**

In this unit, students will do the following:

- Explain how the form, function, and size of urban settlements are constantly changing. [SC 8]
- Apply models to understand the distribution and size of cities. [SC 12]
- Analyze how models of internal city structure and urban development provide a framework for urban analysis. [SC 8, CS 1.A, CS 1.B, CS 1.D, CS 1.E]

## Sample activities in this unit:

- Students will explain the factors that initiate and drive urbanization and suburbanization. In an activity, students will read an article about millennials and evaluate what effects millennials moving back home with their parents will have on urban settlements and their economic bases. [SC 8]
- Students will evaluate the infrastructure of cities and apply models to explain the hierarchy and interaction patterns of urban settlements. [CS 1.D, CS 1.E] In an activity, students will research a city in the world with a population of over 2 million. They will describe the infrastructure of the city and any sustainability efforts or initiatives—such as urban farming, pollution control measures, and even urban development—that involve reshaping the city's landscape to be more vertical than horizontal. [SC 8 and SC 12]

Required reading: The Cultural Landscape, Chapter 12: Services and Settlements [SC 8, CS 1]

#### **Unit 7: Urban Patterns**

In this unit, students will do the following:

- Analyze how built landscapes and social space reflect the attitudes and values of a population.
- Evaluate the economic, social, political, cultural, and environmental challenges facing urban areas. [SC 8]

Sample activities in this unit:

- Students will evaluate the geographic processes that impact business in urban areas. In an activity, students will analyze the business landscape of Montreal through photographs. They will apply what they have learned about urban patterns to propose solutions for businesses to encourage people to shop in the city during the winter. [SC 8]
- Students will analyze the demographic and population characteristics of cities using quantitative and qualitative data gathered from the U.S. Census Bureau. [CS 3.C] In an activity, students will conduct a social area analysis of a familiar area and use this data to reflect on how the built landscape reflects the population. [SC 8 and SC 11]
- Students will evaluate problems and propose possible solutions associated with urban issues. In a portfolio, students will conduct research on food deserts in urban zones and write a detailed report on what food deserts are, the challenges associated with them, and the possible solutions to reduce or eliminate them. [SC 8]

Required reading: The Cultural Landscape, Chapter 13: Urban Patterns [SC 8, CS 3]

## **Unit 8: Review and Full-Length Practice Exam**

In this unit, students will do the following:

- Review the entire course, using the results of the mid-semester check and unit tests to focus this review.
- Complete a full-length practice exam in the style of the AP Human Geography exam, over the course of three days.

## **Unit 9: Semester Project**

In the project unit, students will choose one topic (culture, economics, or politics) and create a multimedia presentation that connects this topic to human geography. Students will draw on what was learned in both semesters to develop a series of maps with supporting text that illustrates how this topic has shaped human geography over time. [SC 11]

#### **Unit 10: Semester Exam**

In this unit, students will do the following:

• Demonstrate knowledge from this semester by completing a graded semester exam written in the style of AP Human Geography.

# **AP Macroeconomics**



## **AP Macroeconomics**

## **Course Overview**

Name	AP Macroeconomics
Description	AP Macroeconomics students learn why and how the world economy can change from month to month, how to identify trends in our economy, and how to use those trends to develop performance measures and predictors of economic growth or decline. They'll also examine how individuals, institutions, and influences affect people, and how those factors can impact everyone's life through employment rates, government spending, inflation, taxes, and production. The equivalent of a 100-level college-level class, this course prepares students for the AP Exam and for further study in business, political science and history.  The content aligns to the scope and sequence specified by the College Board and to widely used textbooks.
Teacher role	All students enrolled in this course are assigned to a "section" and have a teacher who is charged with ensuring student success and addressing student questions, problems, and concerns. In addition, all students have a "mentor" who is available in their school or home and helps keep the student on track for completing the materials in a timely manner.
Prerequisites	<ul><li>Algebra II (or Math Analysis)</li><li>Recommended for qualified AP students</li></ul>
Length	One semester
Materials	The majority of the required instructional material for this course is available to students online and is equivalent to a college-level textbook. <b>(CR1)</b> These materials were created and owned by our company. In addition, the following is an optional purchase:
	Tucker, I. B., ed. (2005) <i>Macroeconomics for Today,</i> 10 <sup>th</sup> Edition. Mason, OH: Thomson/South-Western.
	<ul> <li>Alternate editions also acceptable: 5<sup>th</sup> - 9<sup>th</sup> editions.</li> </ul>

The following key should help you understand the different types of activities students engage in during the course:

Activity Type	Description
Discuss	Students discuss topics in an online bulletin-board style forum. Teachers participate in these discussions as well and students receive credit for their participation.
Exam	Test administered at semester's end covering all material from the course. This exam is graded by the teacher and not only tests student understanding of the course material but is also designed to be a practice run for the AP exam itself.

Appendices page 2147 Pennwood Cyber Charter School

Practice	Students answer questions regarding what they have learned thus far. These assignments are graded by the teacher, who provides relevant feedback.
Quiz	Computer-administered and automatically graded assessment.
Review	Review of the material covered in a unit or over a semester
Study	Primary instructional online content that teaches new concepts through multimedia and interactivity,
Test	Assessment covering the material introduced in a unit, which is graded by the teacher.

Course Syllabus

#### Big Ideas (CR2):

The following big ideas are developed throughout the course: Economic Measurements (MEA), Markets (MKT), Macroeconomic Models (MOD), Macroeconomic Policies (POL).

- MEA (Economic Measurements):
  - O Unit 3: Students will investigate circular flow and the four sector of the economy and how they relate to the health of the macroeconomy. They will examine GDP in several activities and will be asked to use that analysis to explore the relationship between income and expenditure as well as work through an analysis on the flows of production and income. They will analyze unemployment scenarios using various economic factors. They will also be asked to investigate and analyze concepts such as the relationship between interest rates and other factors like inflation, practice using variables, and apply inflation to real world situations.
  - Unit 6: Students will investigate the role of money and investigate demand for money, investment of money, and explore the money creation process. They will apply this knowledge to apply concepts of banking and money creation to the structure of the banking system and discuss whether or not the Fed has too much power, or not enough.
  - MEA: Students will explore the balance of payments, current and capital accounts, and trades and surpluses.
- MKT (Markets):
  - Unit 2: Students will investigate and analyze absolute and comparative advantages.
     They will also have a class discussion on comparative advantages. Lesson 3 focuses on supply and demand and students will discuss government involvement, analyze graphs of supply. And investigate equilibrium and the results of government intervention on a market.
  - Unit 7: Students will investigate the concept of trade and trade restrictions. They will
    explore exchange rates and calculate comparative advantage as it relates to exchange
    rates and supply and demand.
- MOD (Macroeconomic Models):

- Unit 2: Students will look at opportunity costs and marginal analysis, they will be asked to examine production possibilities curves and the efficiency of the graph. They will explore how specialization increases wealth and look for a PPF for the economy.
- O Unit 4: Students will examine the concepts of aggregate supply and demand. They will synthesize this information into activities asking them to examine the role of production capacity on the shape of an AS curve. They will compute aggregate supply and demand. They will discuss whether gasoline prices are a function of AD, AS, or both. They will apply short-run and long-run AD/AS equilibrium to real life concepts and discuss what runs the short-run economy.
- POL (Macroeconomic Policies):
  - Unit 5: Students will investigate fiscal policy as it relates to Keynesian policy. They will
    discuss how fiscal policy contributes to the National Debt. Students will use the AD/AS
    Model to answer questions about the crowding out effect and its implications on
    government taxation and spending
  - O Unit 6: Students will look at the tools the fed uses for monetary policy. They will research monetary policy with an emphasis on computation and graphical analysis. They will apply monetary policy concepts to real-life issues. They will discuss the monetarist stance that money supply should grow at a predictable rate. Lastly, they will investigate monetary and fiscal policies and discuss why a Great Depression style recession would not occur today.

#### **Unit 1: What is Economics?**

Topics covered in this unit:

- What is Economics?
- Scarcity, Wants, and Resources
- Scarcity and Value
- Markets
- Graphing
- Economics as a Science
- Three Fundamental Questions
- Different Ways to Organize an Economic System
- The U.S.: A Mixed Economy
- Four Economic Goals

#### Lesson 1: What is Economics?

## **Lesson Objectives:**

- Describe the format of this course and the skills you'll need to do well.
- Explain what economics is a study of.
- Define macroeconomics and microeconomics.

- Define scarcity.
- Define resources, goods, services, and markets.
- List and explain the three questions that every economic system must answer.
- Explain the three basic economic systems and explain how they each answer the three basic economic questions.
- Explain why the term *mixed economies* describes the nature of most modern economic systems.
- Explain the goals of economic policy: efficient use of resources, price stability, full employment and economic growth.
- Explain the role of price in indicating the relative scarcity of a good.
- Read and interpret graphs.
- Define independent variable and dependent variable.
- Take data from a table and make a graph.
- Define origin, intercept, and slope.
- Determine a line's slope.
- Solve an equation.
- Take data from a graph or table and show it in an equation.
- Explain the common problems associated with economic application of the scientific method.

Practice - Introducing Macroeconomics	Go over the format and goals of the course. See how to succeed in the course and what to expect on the AP exam.
Discuss - Why Study Economics?	Introduce yourself to your classmates and discuss with them your definition of economics and your reasons for studying it.  (Skill 1.A)
Study - Introduction to Economics	Explore the basics of economics, including goods, services, markets, and a fundamental concept of economics: scarcity.  (Skill 1.A)
Practice - Investigate Graphing	Review the basics about tables, graphs, equations, slopes, and intercepts. (Skill 1.C)
Practice - Investigate Economics as a Science	Explore the scientific method and look at mistakes all scientists can make. Examine some special difficulties faced by economists. (Skill 1.A)
Study - Economic Systems	Examine the major questions every economic society faces and explore the different ways traditional, command, and mixed economies answer these questions. Look at efficiency, price stability, full employment, and economic growth. (Skill 1.A)

Appendices page 2150 Pennwood Cyber Charter School

Discuss - The U.S. Economic System	With your classmates, discuss traditional, command, and market aspects of the U.S. economy and other world economies. (Skill 1.D)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content introduced in this lesson.

## Lesson 2: Wrap-Up

## **Lesson Objectives:**

- Define each key term and concept listed in each lesson of this unit.
- Explain the significance of each key term and concept listed in each lesson of this unit.
- Apply concepts you learned in this unit to specific questions.

Review - What Is Economics?	Review your studies of basic economic terms and concepts presented in this unit. (Skill 1.A)
Practice - What is Economics?	Review common economic terms introduced in this unit. (Skill 1.B)
Discuss - Cram Session	Discuss economic terms and other concrete concepts about which you are unclear before you take the test.
Test - What Is Economics?	Take a 50-minute, teacher-graded test covering the main concepts introduced in this unit. The test includes both multiple-choice and free-response questions.

## **Unit 2: Basic Economic Concepts**

## Topics covered in this unit:

- Net benefits and Self-interest
- Costs Are Opportunity Costs
- Sunk Costs
- Positive and Normative Economics
- The Production Possibilities Frontier
- PPF and Opportunity Costs
- PPF and Efficiency
- Absolute and Comparative Advantage
- Trade Between Individuals
- Specialization
- Production Possibilities Frontier for an Economy
- International Trade: A Positive View

Appendices page 2151 Pennwood Cyber Charter School

- International Trade: A Normative View
- Demand
- Change in Quantity Demanded
- Change in Demand
- Price Elasticity of Demand
- Supply
- Change in Quantity Supplied
- Price Elasticity of Supply
- Equilibrium
- Price Ceilings and Price Floors

#### **Lesson 1: Cost and Benefits**

#### Lesson Objectives:

- Relate how scarce resources and unlimited wants make decisions necessary.
- Define some key economic terms: scarcity, self-interest, opportunity cost, marginal analysis, and sunk costs.
- Explain the role of choice in economic theory.
- Distinguish between positive and normative economics.
- Interpret a graph called the production possibility frontier and explain how it's used to demonstrate scarcity, choice, and opportunity cost.
- Define the law of increasing opportunity costs.
- Relate the PPF to the concepts of efficiency, opportunity cost, and the law of increasing opportunity cost.

Study - Costs and Benefits	Examine definitions of opportunity costs and sunk costs as well as benefits and the idea of self- interest. Analyze decision alternatives by considering the opportunity costs and by using marginal analysis as well as positive and normative analysis. (Skill 1.A)
Discuss -Weighing Costs and Benefits	Discuss how you would weigh costs and benefits in various situations. Discuss the costs and benefits of taking an AP class.  (Skill 2.A)
Study - Production Possibilities Frontier	Examine the production possibilities frontier (PPF) and how it's created. Investigate the relationship of opportunity cost and production, and look at the role of efficiency in the graph of the production possibilities frontier. (Skill 2.B)

Appendices page 2152 Pennwood Cyber Charter School

Practice – Investigate the PPF	Further investigate the production possibilities frontier (PPF) and the associated concepts of efficiency, inefficiency, and unattainable production. (Skill 2.C)
Quiz – Wrap-Up	Answer questions to assess your understanding of the content covered in this lesson.

## **Lesson 2: Production and Trade**

## Lesson Objectives:

- Define and explain the concept of absolute advantage.
- Define and explain the concept of comparative advantage.
- Explain how specialization causes interdependence and trade.
- Explain why voluntary trade is beneficial to all parties in an exchange.
- Identify the key ideas of national production and trade, including the benefits of specialization, the relationship between economic growth and the PPF, shifts of the PPF, and advantages and disadvantages of free trade.

Study- Individual Production and Trade	Learn about the concepts of absolute advantage and comparative advantage, as well as how and why people agree to trade with each other. (Skill 1.A)
Practice - Investigate the Absolute and Comparative Advantage	Investigate the concepts of absolute advantage and comparative advantage. Work with both to analyze production, determine who should specialize in what kind of production, and consider the likely terms of trade between two producers. (Skill 1.B)
Discuss - Comparative Advantage	With your classmates, raise and discuss questions regarding comparative advantage. (Skill 1.D)
Study - National Production and Trade	Explore how specialization increases wealth and look at a PPF for an entire economy. Look at the things that increase the possible production in an economy and examine the role of trade in determining the PPF. (Skill 1.A)
Practice - Apply Concepts of Production and Trade	Bring together concepts about trade between individuals and between nations and show how they work together. Then submit your work to your teacher for a grade. (Skill 2.A)

Appendices page 2153 Pennwood Cyber Charter School

Quiz - Wrap-Up	Answer questions to assess your understanding of
	the content presented in
	this lesson.

# **Lesson 3: Demand and Supply**

# Lesson Objectives:

- Define and use the concept of demand to model the behavior of buyers.
- Define and use the concept of supply to model the behavior of sellers.
- Analyze and predict market interactions of buyers and sellers using the model of demand and supply.
- Understand the measure of price elasticity.

Study - Demand	Examine the concept of demand, demand curves, changes in demand, and the measure of price elasticity of demand. (Skill 1.A)
Practice - Investigate Demand	Use graphs and other methods of analysis to answer questions on demand, a change in quantity demanded, and a chance in demand.  (Skill 3.C)
Discuss - Demand Curves	Discuss what the government can do to raise or lower demand-and whether it should become involved at all. (Skill 2.A)
Study - Supply	Examine the concept of supply, supply curves, changes in supply, and the measure of price elasticity of supply. (Skill 1.B)
Practice - Investigate Supply	Use graphs and other methods of analysis to answer questions on supply, a change in quantity supplied, and a change in supply.  (Skill 1.C)
Study - Equilibrium	Explore the concept of equilibrium and see how to determine changes in equilibrium. Examine government intervention-price supports and price floors-and the corresponding surpluses and shortages created by intervention. (Skill 2.C)
Practice - Investigate Equilibrium	Investigate the concepts of equilibrium and disequilibrium. Use graphs and other methods of analysis to explore the influence of changes in demand or supply (or both) on market equilibrium and examine the results

Appendices page 2154 Pennwood Cyber Charter School

	of government intervention in a market. (Skill 3.A)
Practice - Apply Tools of Market Analysis	Bring together concepts about supply, demand, and market equilibrium, and show how they work together. Then send your work to your teacher for grading. (Skill 4.B)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content introduced in this lesson.

## Lesson 4: Wrap-Up

# Lesson Objectives:

- Define each key term and concept listed in each lesson of this unit.
- Explain the significance of each key term and concept listed in each lesson of this unit.
- Apply concepts you learned in this unit to specific questions.

Review - Basic Economic Concepts	Review what you've learned in this unit about production, costs, trade, demand, and supply.
Practice - Basic Economic Concepts	Review the key terms and concepts introduced in this lesson.
Discuss - Cram Session	Discuss economic terms and other areas about which you are unclear before you take the test.
Test - Basic Economic Concepts	Take a test covering production, costs, trade, demand, and supply. This 50-minute teachergraded test includes both multiple- choice and free-response questions.

# **Lesson 5: Diagnostic**

Diagnostic - Basic Economic Concepts	Test your understanding of the key concepts
	covered in Unit 2.

## **Unit 3: Macroeconomic Variables**

Topics covered in this unit:

- Sectors
- Markets
- Expenditures
- Income

Appendices page 2155 Pennwood Cyber Charter School

- Circular Flow
- Gross Domestic Product
- Income and Expenditure
- Leakages and Injections
- National Income Accounts
- Measuring Growth
- Sources of Growth
- Savings vs. Spending
- Changes in Real and Nominal GDP
- Changes Over Time
- Real GDP, Unemployment, and other Variables
- Types of Unemployment
- Full Employment
- Costs of Unemployment
- CPI
- Measuring Inflation
- Issues with the CPI
- Interest Rates
- Components of Interest Rates
- Types of Interest Rates
- Investment
- Stocks, Bonds, & More
- Sources of Inflation
- Real Variables
- Costs of Inflation

#### **Lesson 1: Gross Domestic Product**

#### **Lesson Objectives:**

- Distinguish between the different sectors of the economy and the different types of income and expenditure.
- Draw and explain the circular flow of economic activity for a complex economy.
- Define gross domestic product.
- Explain the relationship between total income, total expenditure, and GDP.
- Compare and contrast different measures of economic well-being.
- Compare and contrast short- and long-run changes in RGDP.
- Describe the sources of long-term growth.
- Explain the short- and long-run trade-off for economic expansion.

Study - Circular Flow	Investigate the components of the circular flow
	model, and see the components put together to
	make a picture of an economy.
	(Skill 1.A)

Appendices page 2156 Pennwood Cyber Charter School

Practice - Investigate Circular Flow	Investigate the circular flow model, identifying the components and working through various calculations to develop some very helpful and powerful equations for tracking the movement. (Skill 2.C)
Discuss - The Four Economic Sectors	Discuss the four sectors of the economy and how you'd rank them in determining the health of the macroeconomy. (Skill 1.D)
Study - National Income	Examine GDP and compare it to some other economic measures. Explore the relationship between income and expenditures in an economy. (Skill 1.D)
Practice - Investigate National Income	Work through an analysis of the flows of production and income in a fictitious country, use the concepts of nominal GDP and real GDP, and take a close look at injections and leakages. (Skill 3.B)
Practice - Apply Concepts of National Income	Apply the terms and concepts of national income to real world situations. Then send your work to your teacher for grading. (Skill 2.B)
Study- Long-Term Growth	Examine the problems with using only real GDP to measure growth. Look at the sources of long-term growth and the trade-off between spending today and future growth.  (Skill 3.A)
Discuss - Conflict of Short- and Long-Term Growth	Defend your opinion regarding the benefits of long-term and short-term growth. (Skill 2.A)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content introduced in this lesson.

# **Lesson 2: Business Cycles and Unemployment**

# Lesson Objectives:

- Define the business cycle, including recessions and expansions.
- Explain the relationship between the business cycle and unemployment.
- Define unemployment and determine how it is calculated.
- Characterize the different types of unemployment.
- Explain full employment.
- Describe the costs of unemployment.

Study - The Business Cycle	Examine the business cycle and how it's evaluated.
Discuss - Future of the U.S. Economy	Make and defend predictions about the future of the U.S. economy. <b>(Skill 3.A)</b>
Study - Unemployment	Examine the categories of unemployment and the criteria for each: seasonal, frictional, cyclical, and structural unemployment. (Skill 1.A)
Practice -Apply Knowledge of Unemployment	Use economic factors to analyze various unemployment scenarios. Then send your work to your teacher for grading. (Skill 2.A)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content introduced in this lesson.

## **Lesson 3: Inflation**

## **Lesson Objectives:**

- Define inflation, including the different sources of inflation: demand-pull and cost-push.
- Explain the consumer price index and identify its advantages and disadvantages.
- Discuss interest rates and the effect of interest rates on investment and savings.
- Use a price index to calculate real income, real interest, and real GDP.
- Describe the costs of inflation.
- Calculate differences between real and nominal prices.

Study – CPI	Examine the CPI. See how it's calculated and learn how it's used to measure inflation. (Skill 1.B)
Discuss - List Your Own Market Basket	Describe a "market basket" for a typical college student. (Skill 1.A)
Practice - Investigate Inflation	Investigate many of the issues involving inflation and the inflation rate. Focus on issues related to the CPI (a price index), market baskets, and calculating the inflation rate. (Skill 1.C)
Study - Interest Rates	Explore interest rates and their effect on investment and the purchases of financial instruments. (Skill 2.C)
Practice - Investigate Interest Rates	Investigate the relationships between interest rates and other economic factors such as inflation and the CPI and analyze the market for loanable funds. (Skill 1.D)

Appendices page 2158 Pennwood Cyber Charter School

Discuss - Inflation and the Economy	If moderate inflation is good for the economy, discuss whether cost-push or demand-pull inflation is better. (Skill 1.D)
Study - Inflation and Real Variables	Further examine the concepts of demand-pull and cost-push inflation. (Skill 1.B)
Practice - Investigate Real Variables	Practice using nominal variables and real variables in several contexts. (Skill 3.C)
Practice - Apply Knowledge of Inflation	Apply the concepts of inflation and interest to real world situations. Then send your work to your teacher for a grade. (Skill 3.B)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content introduced in this lesson.

## Lesson 4: Wrap-Up

## Lesson Objectives:

- Define each key term and concept listed in each lesson of this unit.
- Explain the significance of each key term and concept listed in each lesson of this unit.
- Apply concepts you learned in this unit to specific questions.

Review - Macroeconomic Variables	Review your studies of gross domestic product, business cycles and unemployment, inflation, and the GDP as introduced in this lesson.
Practice - Macroeconomic Variables	Review the common economic terms (referring to macroeconomic variables) introduced in this unit.
Discuss - Cram Session	Discuss macroeconomic variables and other areas about which you are unclear before you take the test.
Test - Macroeconomic Variables	Take a test about macroeconomic variables. This 50-minute, teacher-graded test includes both multiple- choice and free-response questions.

## Unit 4: The AD/AS Model

Topics covered in this unit:

- Aggregate Demand
- Changes in the Price Level
- Changes in Aggregate Demand
- Aggregate Supply

- Full Capacity
- Shape of AS Curve
- Shifts of AS
- Short Run Equilibrium
- Demand Shock
- Supply Shock
- Full Employment
- Long-Run Aggregate Supply
- Changes in Long-Run Equilibrium

## **Lesson 1: Aggregate Demand and Aggregate Supply**

## Lesson Objectives:

- Define aggregate demand.
- Identify and explain the elements of the aggregate demand (AD) graph.
- Distinguish between changes in the level of aggregate quantity demanded and aggregate demand.
- Identify the sources and effects of changes in AD.
- Define full capacity.
- Identify and explain the elements of the aggregate supply (AS) graph.
- Distinguish between changes in the level of aggregate quantity supplied and aggregate supply.
- Identify the sources and effects of changes in AS.

Study - Aggregate Demand	Examine aggregate demand (AD) and explore the role the price level plays in determining the shape of the AD curve. (Skill 1.C)
Practice - Investigate Aggregate Demand	Practice computing and graphing aggregate demand. (Skill 4.A)
Study - Aggregate Supply	Examine aggregate supply (AS) and explore the role the production capacity of an economy plays in determining the shape of the AS curve. (Skill 1.B)
Practice - Investigate Aggregate Supply	Practice computing and graphing aggregate supply. (Skill 4.A)
Discuss - Gasoline Prices	Defend your opinion about whether gasoline prices are a function of <i>AD</i> , <i>AS</i> , or both. <b>(Skill 2.C)</b>
Quiz - Wrap-Up	Answer questions to assess your understanding of the content presented in this lesson.

Appendices page 2160

# Lesson 2: Short-Run AD/AS Equilibrium

# **Lesson Objectives:**

- Define and explain short-run equilibrium in the AD/AS model.
- Identify the effects of changes in AD, AS, or both.

Study - Short-Run <i>AD/AS</i> Equilibrium	See how short-run economic equilibrium is determined by aggregate demand and short- run aggregate supply. Look at how changes in <i>AD</i> or <i>AS</i> , called shocks, change equilibrium.  (Skill 2.C)
Practice - Investigate Short-Run AD/AS	Investigate equilibrium in the AD/AS model in the short run, with an emphasis on computation and graphing. (Skill 4.B)
Practice -Apply Concepts of Short-Run Equilibrium	Apply the concept of short-run <i>AD/AS</i> equilibrium to real life concepts. <b>(Skill 3.C)</b>
Discuss - The Short-Run Economy	Discuss whether the short-run economy is driven more by aggregate supply or aggregate demand factors. (Skill 3.A)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content presented in this lesson.

# Lesson 3: Long Run AD/AS Equilibrium

- Define and explain long-run equilibrium in the AD/AS model.
- Identify the sources and effects of changes in long-run equilibrium.
- Define the natural rates of economic growth and unemployment.
- Identify the differences between AD/AS effects in the short run and in the long run.

Study- Long-Run <i>AD/AS</i> Equilibrium	Examine the concept of full employment. Explore reasons the full-employment level of output changes. Look at changes in long-run equilibrium caused by changes in aggregate demand or aggregate supply. (Skill 1.C)
Practice - Investigate Long-Run AD/AS	Use computation and graphs to investigate long-run <i>AD/AS</i> , including changes in aggregate supply. <b>(Skill 4.C)</b>
Discuss - Foreign Cars	If foreign cars are cheaper than domestic cars, defend your opinion about whether it helps or hinders our economy to buy them.  (Skill 3.A)

Practice - Apply Concepts of AD/AS	Use the concepts of <i>AD/AS</i> to analyze a nation's price level and level of RGDP. Then send your work to your teacher for a grade.  (Skill 3.C)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content presented in this lesson.

## Lesson 4: Wrap-Up

# Lesson Objective:

- Define each key term and concept listed in each lesson of this unit.
- Explain the significance of each key term and concept listed in each lesson of this unit.
- Apply concepts you learned in this unit to specific questions.

Review - The AD/AS Model	Review your studies of aggregate demand, aggregate supply and AD/AS equilibrium as introduced in this unit.
Practice - The AD/AS Model	Review common economic terms (referring to the <i>AD/AS</i> model) that were covered in this unit.
Discuss - Cram Session	Discuss <i>AD/AS</i> and other areas about which you are unclear before you take the test.
Test - The AD/AS Model	Take a 50-minute, teacher-graded test about the <i>AD/AS</i> model. It includes both multiple-choice and free-response questions.

# **Unit 5: Keynesian Economics and Fiscal Policy**

# Topics covered in this unit:

- Consumption
- MPC
- Changes in Consumption
- Investment
- Aggregate Expenditures
- Keynesian Equilibrium
- Changes in Equilibrium
- Sticky Prices
- AS Curve
- AD Curve
- Economic Change
- Keynesian Analysis
- AD/AS Analysis

Appendices page 2162 Pennwood Cyber Charter School

- Fiscal Policy Today
- Tax and Spend
- Debt and Deficit
- Crowding Out
- Multiplier Effect

# **Lesson 1: The Keynesian Model**

- Explain the building blocks of the Keynesian model, including the consumption function, the
  different components of aggregate expenditures, and the concept of equilibrium in the
  Keynesian model.
- Define the marginal propensity to consume and explain its effect on the Keynesian model.
- Graph the Keynesian model, show how changes in the economy are reflected on a graph, and make predictions about the economy based on the model.

Study- The Keynesian Model, Part 1	Explore consumption and investment functions as Keynes saw them. (Skill 1.A)
Practice - Investigate the Keynesian Model, Part 1	Apply the Keynesian model to graphs of consumption and investment. (Skill 4.B)
Discuss - Keynes and The Great Depression	Discuss the social and economic effects of the Great Depression. <b>(Skill 1.B)</b>
Study - The Keynesian Model, Part 2	Explore the different components of the Keynesian model and the definition of equilibrium. Look at the sources and results of changes in equilibrium. (Skill 1.A)
Practice - Investigate the Keynesian Model, Part 2	Work through issues related to the Keynesian model, with an emphasis on graphing and computation. Featured topics include aggregate expenditures, consumption, equilibrium, the spending and tax multipliers, changes in AE, and the marginal propensity to consume. (Skill 4.B)
Practice - Apply Concepts of the Keynesian Model	Synthesize the different concepts of the Keynesian model to build a comprehensive perspective. Then send your work to your teacher for a grade. (Skill 1.A)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content presented in this lesson.

Lesson 2: Keynes in AD/AS

# Lesson Objectives:

- Given the same information, show an economy in the AD/AS framework and in the Keynesian framework.
- Compare and contrast the similarities and differences between the AD/AS model and the Keynesian model.

Study - Keynes in <i>AD/AS</i>	Examine the differences and similarities between the Keynesian and <i>AD/AS</i> models. Look at examples demonstrating the predictive power of each model. <b>(Skill 1.B)</b>
Discuss - Creating Supply or Demand	Express and defend your opinion regarding whether supply creates demand or demand creates supply. (Skill 2.A)
Practice - Apply the Keynesian Model to AD/AS	Practice graphing with the Keynes model in the AD/AS framework. Synthesize what you know and see how the two models relate to each other. Then send your work to your teacher for a grade. (Skill 4.B)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content presented in this lesson.

# **Lesson 3: Fiscal Policy**

- Explain fiscal policy and show the effects graphically.
- Categorize the situations in which you expect fiscal policy to be effective and in which you expect it to be ineffective.
- Describe the basic structure of government spending and taxation.

Study - Fiscal Policy	See analyses of fiscal policy in the Keynesian and AD/AS models, explore the difficulties with fiscal policy, and examine why it's rarely used today. (Skill 1.A)
Practice - Investigate Fiscal Policy	Investigate the effects of fiscal policy, practice graphing the effects of fiscal policy, and apply and calculate the multiplier effect. (Skill 3.C)
Discuss - The National Debt	Express and defend your opinion regarding whether fiscal policy is responsible for the National Debt. (Skill 3.B)

Study- Government Spending and Taxation	Explore government spending and taxation in the U.S. economy, and examine the budget deficit and the national debt. (Skill 1.B)
Practice - Investigate Government Spending and Taxation	Using the AD/AS model, answer questions about the "crowding out" effect, and investigate its implications in terms of government taxation and spending. (Skill 3.C)
Practice - Apply Concepts of Fiscal Policy	Answer questions that will help you draw connections between different fiscal policy concepts. Then send what you've done to your teacher for grading. (Skill 1.D)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content presented in this lesson.

# Lesson 4: Wrap-Up

# Lesson Objectives:

- Define each key term and concept listed in each lesson of this unit.
- Explain the significance of each key term and concept listed in each lesson of this unit.
- Apply concepts you learned in this unit to specific questions.

Review - Keynesian Economics and Fiscal Policy	Review your studies of Keynesian economics and fiscal policy as introduced in this unit.
Practice - The Keynesian Model	Review the key terms and concepts introduced in this unit.
Discuss - Cram Session	Discuss the Keynesian model, fiscal policy, and any areas about which you are unclear before you take the test.
Discuss - You Be the Teacher!	Make suggestions for completing a correctly answered, but incomplete, AP-style question about macroeconomics.
Test - Keynesian Economics and Fiscal Policy	Take a 50-minute, teacher-graded test on Keynesian economics and fiscal policy. It includes both multiple-choice and free response items.

# **Unit 6: Money**

Topics covered in this unit:

- Functions of Money
- Examples of Money

- Liquidity
- Money Demand
- Fractional Reserve Banking
- The Federal Reserve
- Disintermediation
- History of the U.S. Banking System
- Money Creation
- Money Multiplier
- Money Supply
- Monetary and Fiscal Tools
- Required Reserve Ratio
- Discount Rate
- Open Market Operations
- Monetary Policy
- Contractions and Expansions
- Stagflation and the Fed
- Monetarism
- Laissez-Faire Debate
- Expectation Theory
- Interest Rates
- Phillips Curve
- Other Implications of Monetary and Fiscal Policies

#### **Lesson 1: Money and Banks**

#### **Lesson Objectives:**

- Understand the definition of money, including what it is, what it's used for, and how it's counted.
- Explain what it means to demand money and list the things that affect how much money people demand.
- Describe fractional reserve banking, including what it means and how it succeeds.
- Relate the process of money creation to fractional reserve banking.
- Use the money multiplier to calculate changes in the quantity of money in the economy.

Study - Money Demand	Explore the roles of money (unit of account, medium of exchange, store of value) and reasons people hold money (transactions, asset portfolio, protection against the unexpected). Examine how much money people hold at one time, and why. (Skill 1.A)
Practice - Investigate Money Demand	Use graphing to investigate money demand, the elements of investment, and the function

Appendices page 2166 Pennwood Cyber Charter School

	of money. Practice calculating the quantity of money. (Skill 4.C)
Study - The Banking System	See an overview of the U.S. banking system, discover how fractional reserve banking works, look at the role of the Federal Reserve in the banking system, and investigate the S & L failure of the 1980s. (Skill 1.B)
Study - Money Creation	Explore the money creation process, the role of required reserves in determining the size of money creation, and the idea of money supply. (Skill 1.B)
Practice - Investigate Money Creation	Investigate money creation and the money supply, and practice using the money multiplier.  (Skill 3.A)
Practice - Apply Concepts of Banking and Money Creation	Explore the banking system, the process of money creation, and the relationship between money creation and the structure of the banking system. Then send your work to your teacher for grading. (Skill 1.D)
Discuss - The Fed	Discuss whether the Fed has too much or not enough power. (Skill 1.D)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content presented in this lesson.

# **Lesson 2: Monetary Policy**

# Lesson Objectives:

- Define monetary policy.
- Explain each tool of monetary policy.
- Describe the effects of an expansionary monetary policy and state the conditions when this policy will be used.
- Describe the effects of a contractionary monetary policy and state the conditions when this policy will be used.

Study - Goals and Tools of Monetary Policy	Explore the three tools the Fed uses to control the quantity of money in the economy: the required reserve ratio, the discount rate, and open market operations.  (Skill 1.A)
Study - Effects of Monetary Policy	Explore the process through which a change in the quantity of money in the economy

Appendices page 2167 Pennwood Cyber Charter School

	changes the level of prices or production. (Skill 3.C)
Practice - Investigate Effects of Monetary Policy	Continue your investigations of monetary policy, with an emphasis on computation and graphical analysis. Look at the money market and the bond market and consider the effectiveness of monetary policy when other variables (notably the money demand curve change.) (Skill 2.C)
Practice - Apply Concepts of Monetary Policy	Bring together concepts related to monetary policy. Apply the concepts to real-life issues faced by economic policy makers at the Fed (or other central banks). Send your work to your teacher for scoring. (Skill 3.A)
Discuss - Monetarists	Discuss the Monetarist stance that the money supply should arow at a predictable rate. (Skill 1.D)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content presented in this lesson.

# **Lesson 3: Monetary and Fiscal Policy**

# Lesson Objectives:

- Compare and contrast monetary and fiscal policy.
- Explain the key arguments in favor of each policy.
- Explain the key arguments against each policy.
- Describe the combined effects of active monetary and fiscal policies.

Study – Monetary and Fiscal Policy	Compare and contrast monetary and fiscal policy. Look at the many issues associated with both policies and explore more recent developments in macroeconomic theory.  (Skill 1.D)
Practice - Investigate Monetary and Fiscal Policy	Consider the strengths and weaknesses of fiscal and monetary policy, with an emphasis on computation and graphing. Issues covered include the Phillips curve, expectations theories, crowding-out, supply-side theories, the life-cycle theory of consumption, and the permanent income theory. (Skill 1.D)
Discuss - Another Great Depression?	Discuss why a Great-Depression-style recession would not occur today. (Skill 1.B)

Appendices page 2168 Pennwood Cyber Charter School

Practice - Apply Concepts of Monetary and Fiscal Policy	Use your knowledge of monetary and fiscal policy to investigate the interaction between these policies and the expectations of the household sector. Then send your work to your teacher for grading. (Skill 3.A)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content presented in this lesson.

# Lesson 4: Wrap-Up

# **Lesson Objectives:**

- Define each key term and concept listed in each lesson of this unit.
- Explain the significance of each key term and concept listed in each lesson of this unit.
- Apply concepts you learned in this unit to specific questions.

Review – Money	Review your studies of money, banks, monetary policy, and fiscal oolicv as introduced in this unit.
Practice – Money	Review the kev terms and concepts covered in this unit.
Discuss – Cram Session	Discuss money, banks, monetary policy, fiscal policy, and any areas about which you are unclear before you take the test.
Discuss - You Be the Teacher!	Make suggestions for completing a correctly answered but incomnlete AP-stale auestion about macroeconomics.
Test– Money	Take a 50-minute, teacher-scored test about money, banks, monetary policy, and fiscal policy. It includes both multiple- choice and free-response questions.

# **Unit 7: International Economics**

Topics covered in this unit:

- Free Trade
- Protectionism
- Exchange Rates
- Current Account
- Capital Account
- Balance of Payments

Appendices page 2169 Pennwood Cyber Charter School

- One Price
- Fiscal Policy
- Monetary Policy

#### Lesson 1: Trade

## Lesson Objectives:

- Identify the advantages of free trade.
- Describe the ways a government can restrict trade and the effects of those restrictions.
- Explain the motives for protectionism.
- Use the concepts of demand and supply lo evaluate the foreign exchange market.
- Use and define the current account, the capital account, and the balance of payments.

Study- Trade and Exchange Rates	Explore reasons why nations trade and impose trade restrictions. Look at the benefits of trade and investigate exchange rates, seeing how they're determined and what causes changes in exchange. (Skill 1.D)
Practice - Investigate Exchange Rates	Practice calculating comparative advantage. Take a look at exchange markets and practice using a supply and demand analysis to predict changes in exchange rates. (Skill 2.C)
Study - Balance of Payments	Explore current and capital accounts, the relationship between a trade deficit in goods and services and a trade surplus in capital, and the twin deficits effect. (Skill 1.A)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content presented in this lesson.

## **Lesson 2: An Open Economy**

# Lesson Objectives:

- Explain the law of one price and the concept of purchasing power parity.
- Use the balance of payments and the foreign exchange market to analyze the effects of fiscal policy on international trade.
- Use the balance of payments and the foreign exchange market to analyze the effects of monetary policy on international trade.

Study - Government Policy in an Open Economy	See how global economics can affect domestic fiscal and monetary policies. (Skill 3.B)
Discuss - Tariffs	Express and defend your opinion regarding

Appendices page 2170 Pennwood Cyber Charter School

	whether tariffs should be used to punish other countries or to protect the United States. (Skill 3.A)
Practice - Apply Concepts of International Trade	Bring together and apply concepts related to international trade. Then send your work to your teacher for grading. (Skill 3.B)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content presented in this lesson.

# Lesson 3: Wrap-Up

# **Lesson Objectives:**

- Define each key term and concept listed in each lesson of this unit.
- Explain the significance of each key term and concept listed in each lesson of this unit.
- Apply concepts you learned in this unit to specific questions.

Review - International Economics	Review your studies of trade and open economies as introduced in this unit.
Practice - International Economics	Review the key terms and concepts from this unit.
Discuss - Cram Session	Discuss trade, open economies, andany areas about which you are unclear before taking the test.
Discuss - You Be the Teacher!	Make suggestions for completing a correctly answered but incomplete AP-style question about international <b>economies</b> .
Test - International Economics	Take a 50-minute teacher-graded test about international economies. It includes both multiple-choice and free- response items.

# **Unit 8: Preparing for the AP Exam**

No new content is introduced in this unit.

# **Lesson 1: Comprehensive Microeconomics Review and AP Exam Practice**

- Describe the format of the AP Microeconomics Exam.
- Develop a plan for how you're going to study between now and exam day.
- Define and explain the significance of each key term and concept introduced in this course.
- Apply the concepts you've learned to specific questions.

- Apply your knowledge to questions that may look new on the surface but can be analyzed and answered using skills and knowledge you've gained in this course.
- Manage your time effectively as you prepare for, and take, the Final Exam and the AP Exam.

Study - AP Exam Preparation	See how to develop a strategy for studying for and
Study 711 Examineparation	taking the AP Exam. Find out what to expect in the
	Exam and get some tips on how to answer free-
	response questions.
Review - Microeconomics	Review your studies of macroeconomics in
	preparation for the AP Exam. This review includes
	an overview of the key concepts covered in the
	course, a review checklist, a suggested study plan
	and practice free-
	response questions.
Quiz - Practice Multiple-Choice Questions	Answer multiple-choice questions covering
'	material about macroeconomics as a warm-
	up for taking the exam.
Discuss - Any Questions?	Raise questions concerning material you
	studied in this course before taking the Final Exam.
Final Exam - Microeconomics	Take the Final Exam in macroeconomics. This 2
. mai Exam Time occombines	
	1/2-hour teacher-graded exam includes both
	multiple-choice and free-response questions.

# **AP Microeconomics**



# **AP Microeconomics**

#### **Course Overview**

Name	AP Microeconomics
Description	AP Microeconomics studies the behavior of individuals and businesses as they exchange goods and services in the marketplace. Students will learn why the same product costs different amounts at different stores, in different cities, at different times. They'll also learn to spot patterns in economic behavior and how to use those patterns to explain buyer and seller behavior under various conditions. Microeconomics studies the economic way of thinking, understanding the nature and function of markets, the role of scarcity and competition, the influence of factors such as interest rates on business decisions, and the role of government in promoting a healthy economy. The equivalent of a 10D-level college course, AP Microeconomics prepares students for the AP Exam and for further study in business, history, and political science.  The content aligns to the scope and sequence specified by the College Board and to widely used textbooks.
Teacher role	All students enrolled in this course are assigned to a "section" and have a teacher who is charged with ensuring student success and addressing student questions, problems, and concerns, as well as with grading student assignments, tests and the final examination. In addition, all students have a "mentor" who is available in their school or home and helps keep the student on track for completing the materials in a timely manner.
Prerequisites	Algebra I     Recommended for qualified AP students
Length	One semester
Materials	The majority of the required instructional material for this course is available to students online and is equivalent to a college-level textbook. These materials were created and owned by our company. In addition, the following is an optional purchase:
	Tucker, I. B., ed. (2018) <i>Microeconomics for Today,</i> 10 <sup>th</sup> Edition. Mason, OH Thomson/ South-Western.  • Alternate editions also acceptable: 5 <sup>th</sup> -9 <sup>th</sup> .

The following key should help you understand the different types of activities students engage in during the course:

Activity Type	Description
Discuss	Students discuss topics in an online bulletin-board style forum. Teachers participate in these
	discussions
	as well and students receive credit for their participation.
Exam	Test administered at semester's end covering all material from the course. This exam is graded by
	the teacher and not only tests student understanding of the course material, but is also designed to
	be a
	practice run for the AP exam itself.
Practice	Students answer questions regarding what they have learned thus far. These
	assignments are graded by the teacher, who provides relevant feedback.
Quiz	Computer-administered and automatically graded assessment.
Review	Review of the material covered in a unit or over a semester
Study	Primary instructional online content that teaches new concepts through multimedia and interactivity,
Test	Assessment covering the material introduced in a unit, which is graded by the teacher.

Appendices page 2174 Pennwood Cyber Charter School

Skill 1 - Principles and Models: Define economic principles and models.

#### Skill 1.A:

- Unit 1, Lesson 1, Activity 1, Study: Introduction to Economics: Students will explore the basics of
  economics, including goods, services, markets, and a fundamental concept of economics: scarcity. This
  lesson requires students to take notes and describe basic economic principles, concepts, and models.
  They will take both self-guided notes and answer course-created short answer questions.
- O Unit 4, Lesson 1, Activity 1, Study: Business Organization: Students will explore the most common legal forms of business organizations sole proprietorship, partnership, and corporation and the advantages and disadvantages of each. As they move through the lesson, they will need to watch the lesson tutorial, take notes on key terms, and take individual notes on each tutorial section. This will require students to describe the basic economic concepts, principles, and models associated with business organization.
- O Unit 7, Lesson 1, Activity 1, Study: Externalities and Public Goods: Students will examine positive and negative externalities, and the role of government intervention in the case of market failures. Define non-rival consumption and non-exclusionary consumption and use these definitions to determine whether a good is public or private. As they move through the lesson, they will need to watch the lesson tutorial, take notes on key terms, and take individual notes on each tutorial section. This will require students to describe the basic economic concepts, principles, and models associated with public goods.

#### • Skill 1.B:

- O Unit 1, Lesson 1, Activity 5, Study: Economic Tools: Graphs and Equations: Students will review basic concepts about graphs, equations, slopes and intercepts and see how to apply these skills as they work with income graphs and formulas. Students will be able to identify different economic principles, concepts, or models illustrated by examples. As student progress through the lesson, they will learn and identify different ways that principles are modeled through graphs, and they will take notes on these methods.
- Unit 3, Lesson 2, Activity 1, Study: Supply: Examine supply curves and see how to make one as you learn about the law of supply. Define supply and explore how the supply curve is the best choice of quantity at each market price. Students will watch the tutorial as the lesson progresses and take notes on their study guide. By the end of the lesson, students will be able to identify the economic principle of supply using data.
- O Unit 4, Lesson 1, Activity 4, Study: Production in the Short Run: See how firms make their decisions about production in the short run. Explore difference between the short run and the long run and the difference between variable and fixed factors of production. Examine how diminishing marginal product relates to cost and learn how the marginal and average product curve relate to one another and to the total product curve.

## • Skill 1.C:

- Unit 2, Lesson 1, Activity 3, Study: Production Possibilities Frontier: Students will learn about production possibilities frontiers and will investigate how to chart and graph data values to illustrate the concept.
- Unit 4, Lesson 2, Activity 1, Study: Costs in the Short Run: Examine the costs a firm faces in the short run. Learn about the difference between fixed costs and variable costs. Learn how fixed, variable, and marginal costs change with production and differentiate between marginal and average costs. Students will complete this activity by watching a tutorial and taking detailed notes as they watch. They will need to take notes on key vocabulary and this will ask them to identify the principle of cost using data to show how those costs change with production.
- Unit 7, Lesson 2, Activity 1, Study: Income Distribution and Taxes: See how income is spread through the U.S. economy and learn about the different types of taxation. Explore Lorenz curves, examine poverty, the role of government in income distribution, and the economics of taxation. Explore the problems inherent in using Lorenz curves as measures of income inequality and differentiate between proportional, progressive, and regressive policies. Students will watch tutorials and take notes where they will look at principles like the Lorenz curve and establish how to use quantitative date to chart the curve.

#### • Skill 1.D:

- Unit 1, Lesson 1, Activity 4, Discuss: Scarcity and Value: Students will discuss the concepts of scarcity and value with their classmates. They will respond to two questions about scarcity and value and then will be required to discuss the differences of opinion they have with another student regarding the economic concepts.
- Unit 3, Lesson 4, Activity 2, Practice: Investigate Elasticity of Demand: Students will investigate
  elasticity of demand as well as the relationship between elasticity and total revenue in this online
  interactive activity. As

- students graph data, they will compare the difference between elastic and inelastic demand in short answer written responses.
- Unit 5, Lesson 4, Activity 4, Discuss: Market Structures: Students will discuss issues related to the main types of market structures with their classmates. The discussion will focus around the comparison of different market structures and which market is better for the specific example business.

Skill 2 – Interpretation: Explain given economic outcomes.

#### Skill 2.A:

- Unit 2, Lesson 2, Activity 5, Practice: Apply Concepts of Production and Trade: Students will apply the
  concepts of comparative advantage and specialization to questions about individual and national
  production. They will answer questions regarding multiple economic scenarios that will require
  students to use the economic principles of comparative advantage and specialization to explain how an
  outcome occurs and what actions would need to be carried out to achieve that outcome.
- Unit 3, Lesson 2, Activity 4, Discuss: Another Determinant of Supply?: Students will explain their opinion about a possible addition to the list of determinants of supply-the number of suppliers in the market. Students will participate in a classroom discussion where they will have to focus on the principle of supply and discuss variables of supply and what effect those variables have on the outcome of different scenarios.
- Unit 4, Lesson 1, Activity 3: Discuss: Costs and Profits of Your Own Business: Choose a type of
  organization for your own business and discuss issues of cost and profit. This lesson will ask students to
  analyze key economic concepts and principles, discuss decisions they would make for their business,
  and analyze the outcomes of those decisions in a class wide discussion.

#### Skill 2.B:

- O Unit 3, Lesson 1, Practice: Apply concepts of Demand and Shifts of Demand Curves: Students will answer questions on demand and the determinants of demand. This will require students to use the economic principle of demand to analyze how different economic outcomes occur when there are different variables on demand. Students will complete this activity by answering several questions on hypothetical situations relating to the economic principle.
- O Unit 3, Lesson 4, Activity 1, Study: Price Elasticity of Supply and Other Elasticities: Students will examine producer sensitivity to price changes, consumer sensitivity to income and the prices of related goods. Differentiate between elastic, inelastic and unit elastic supply. Explore the determinants of price elasticity of supply and how income elasticity of demand is used to categorize goods as normal or inferior. Also, explore how crossprice elasticity of demand is affected by the change in price of a complement, substitute and non- related goods. As students complete this lesson, they will watch the tutorial and take detailed notes on elasticity of supply. They will examine how multiple contributing variables lead to specific economic outcomes in relation to elasticity.
- Unit 6, Lesson 2, Activity 4: Practice: Apply Concepts of Factor Demand: Students will answer short
  answer questions about the demand for the factors of production. Throughout this lesson, students
  will be required to analyze multiple variables as they relate to factor demand. They will then use these
  variables to discuss economic outcomes as they relate to factor demand.

#### • Skill 2.C:

- Unit 2, Lesson 2, Activity 2, Practice: Investigate the Absolute and Comparative Advantage: Students will practice calculating comparative and absolute advantage in a scored, interactive, online activity. Students will interpret data to evaluate who has comparative advantage in multiple scenarios.
- Unit 3, Lesson 2, Activity 5, Practice: Investigate Shifts of Supply Curves: Students will investigate how to shift supply curves in this scored, interactive activity. Students will need to determine how supply curves change when situations are presented to them and reflect those changes using their calculations on graphs. Students also answer short answer questions in this assignment.
- Unit 6, Lesson 2, Activity 2, Practice: Investigate Labor Markets: Students will compare the outcomes of a regular labor market with a monopsonistic labor market, and answer questions about labor unions. Students will also use quantitative data to interpret the impact of labor costs on the economic outcome and success of Acme Company, a fictional company. There are short answer and extended response questions.

Skill 3 – Manipulation: Determine outcomes of specific economic situations.

#### • Skill 3.A:

Unit 2, Lesson 1, Activity 2, Discuss: Weighing Costs and Benefits: Students will discuss the costs and

benefits of taking specific classes with a focus on microeconomics. They will analyze the principles of cost and benefit and use this analysis to determine the outcome of their decision through a class discussion.

 Unit 3, Lesson 4, Activity 5, Practice: Apply Concepts of All Elasticities: Students will answer questions about price elasticity of supply and demand, income elasticity of demand, and cross-price elasticity of demand. Students will answer multiple questions about elasticity of supply and demand and will determine the outcome of various economic situations using their knowledge of elasticity.

#### Skill 3.B:

- O Unit 3, Lesson 3, Activity 3, Study: Changes in Equilibrium: Students will look at supply and demand curves together as they explore the concept of market equilibrium. They will develop an understanding of how price ceilings and price floors affect the market and how price functions to ration a product. They will then see how changes in supply and demand affect market equilibrium and investigate price floors and price ceilings. Students will complete this through analytical questions that they will answer as reading and watching the lesson tutorial.
- O Unit 5, Lesson 2, Activity 6, Study: Monopolistic Competition: Students will examine the monopolistic competition market and find out about product differentiation. They will consider the market conditions that must exist for a market to be monopolistically competitive and how these competitors can increase their market share as well as how they set their output to maximize profit. Also, they will learn how to identify monopolistic competitors. Through tutorials and notes, students will determine the effect of changes on economic markets in relation to monopolies.

#### • Skill 3.C:

- Unit 2, Lesson 1, Activity 4, Practice: Investigate the PPF: Students will investigate the production
  possibilities frontier and factors that affect it in an interactive, scored online activity. They will use data
  on phone calls and posters made in relation to a fundraiser in order to determine the effect of change
  and use that data by plotting it on a graph to illustrate that change.
- Unit 6, Lesson 1, Activity 2, Practice: Investigate Factor Demand: Students will practice deriving a factor demand curve in this scored interactive activity. They will investigate change over time for a birdhouse company whose quantitative data and calculations change as they become more successful, and will analyze the results of the changes the business must make as a result.

Skill 4 – Graphing and Visuals: Model economic situations using graphs or visual representations.

#### • Skill 4.A:

- Unit 2, Lesson 1, Activity 5, Practice: Apply Concepts of Basic Economics: Students will use the tools of the production possibilities frontier and marginal analysis to answer questions about production, cost, trade, and vale. They will then draw and explain graphs that represent the economic model.
- Unit 4, Lesson 1, Activity 5, Practice: Investigate Production in the Short Run: Students will practice creating marginal product curves, and answer questions about the production of a firm in the short run in this interactive scored exercise. Students will come up with data using average product and marginal product and then take that data and draw and accurately labeled graph to represent a production model.
- Unit 7, Lesson 2, Activity 2, Practice: Investigate Taxes and Income Distribution: Students will
  practice working on a graph of the Lorenz curve, answer questions about the different types of taxes,
  and consider issues of redistribution and equity. The graphs that students produce should accurately
  depict taxes and income distribution on the Lorenz curve.

## Skill 4.B:

- Unit 3, Lesson 1, Practice Investigate Demand: Students will practice using demand schedules and demand curves in a scored, online, interactive activity. They will demonstrate their understanding of demand schedules and demand curves by using quantitative data and plotting that data on an accurately labeled graph in order to illustrate the demand for stereos.
- Unit 5, Lesson 1, Practice Apply Concepts of Perfect Competition: Students will answer questions about perfect competition and take quantitative data and plot it on various graphs. This will illustrate understanding of competition and how to represent the concept on a clearly labeled graph.
- Unit 5, Lesson 2, Practice Apply Concepts of Monopolies: Students will answer questions about monopolies and determine the correct course of action for a monopolist to minimize losses. They will then need to graph this data to illustrate their understanding of the scenarios provided in the lesson.

#### Skill 4.C:

Unit 3, Lesson 1, Activity 4, Practice: Investigate Shifts of Demand Curves: Students will practice shifting demand curves in a scored, interactive activity. This lesson will ask students to demonstrate



 Unit 4, Lesson 2, Activity 2, Practice: Investigate Costs in the Short Run: Students will practice using tables and graphs with different short-run cost information for a firm. This will demonstrate the effect of a change in an economic situation on an accurately labeled graph or visual. They will answer short and extended response questions.

Course Syllabus

## Big Ideas (CR2):

There are four big ideas that will be addressed and labeled throughout the course.

- Scarcity and Markets (MKT)
- Costs, Benefits, and Marginal Analysis (CBA)
- Production Choices and Behavior (PRD)
- Market Inefficiency and Public Policy (POL)

The syllabus will clearly identify each of the big ideas and will identify them using their abbreviations to illustrate how they are interconnected and build on each other throughout the units of the course. For example:

Big Idea 3, Production Choices and Behavior, is a main focus of Units 2, 4, 5, and 6. In Unit 2, students will investigate national production and trade and how specialization increases wealth through the analysis of a PPF. They will also look at what could increase production and the role of trade in determining the PPF. In Unit 4, students will evaluate the connection between production in the short-run and in the long-run. They will quantitate this through the concept of marginal product curves.

Students will apply short-run and long-run costs that firms face and will apply these to tables and graphs detailing fixed, variable, and marginal costs. In Unit 5, students will investigate competition. They will complete activities asking them to determine perfect competition markets, work with competition graphs, and connect to long-run situations and efficiency. They will also focus on monopolies and the conditions that make a monopoly possible. They will draw marginal-revenue curves and investigate the cost curves of a natural monopoly. They will also examine the concepts of price discrimination and government regulation of monopolies. They will practice finding the profit-maximizing level of output for a monopolistic competitor. They will explore oligopolies through study activities and practices where they will work with graphs and tables to investigate oligopoly models. They will investigate the role of the government in competition and the role of market structures and mergers in competition. Finally, in Unit 6, students will investigate factor markets and factor demand. They will practice using demand curves and what causes shifts in those curves. They will learn about demand for labor and compensation for labor. In their investigation of labor markets, they will learn about rent, interest, and profit and analyze the role of profit in resources allocation.

## **Unit 1: What is Economics?**

Big Ideas (CR2)

• Big Idea 1, Scarcity and Markets (MKT): How do individuals and economies confront the problem of scarcity? Why do people and other countries trade with one another?

#### Readings:

- Microeconomics for Today
  - o Pages 2-6, 34

The content in this unit maps to the following sections of the College Board's Advanced Placement topic outline:

- A. Scarcity, choice, and opportunity cost
- D. Economic systems

#### Topics covered in this unit:

- What is Economics?
- Scarcity, Wants, and Resources
- Scarcity and Value
- Markets

- Graphs
- Equations
- Intercepts and Slopes
- Three Fundamental Questions
- Different Ways to Organize an Economic System
- The U.S.: A Mixed Economy
- Four Economic Goals

#### Lesson 1: What is Economics?

#### **Lesson Objectives:**

- Describe the format of this course and the skills you'll need to dowell.
- Explain what economics is a study of.
- Define macroeconomics and microeconomics.
- Define scarcity.
- Define resources, goods, services, and markets.
- List and explain the three questions that every economic system must answer.
- Explain the three basic economic systems and explain how they each answer thethree basic economic questions.
- Explain why the term *mixed economies* describes the nature of most modern economic systems.
- Explain the goals of economic policy: efficient use of resources, price stability, full employment and economic growth.
- Explain the role of price in indicating the relative scarcity of a good.
- Read and interpret graphs.
- Define independent variable and dependent variable.
- Take data from a table and make a graph.
- Define origin, intercept, and slope.
- Determine a line's slope.
- Solve an equation.
- Take data from a graph or table and show it in an equation.

Practice - Introducing Microeconomics	Go over the format and goals of the course. See how to succeed in the course and what to expect on the AP exam.
Discuss - Why Study Economics?	Introduce yourself to your classmates and discuss with them your definition of economics and your reasons for studying it.
Study - Introduction to Economics	Explore the basics of economics, including goods, services, markets, and a fundamental concept of economics: scarcity. (Skill 1.A)
Discuss - Scarcity and Value	Discuss the concepts of scarcity and value with your classmates. (Skill 1.D)
Study- Economic Tools: Graphs and Equations	Review basic concepts about graphs, equations, slopes and intercepts and see how to apply these skills as you work with income graphs and formulas. (Skill 1.B)
Study - Economic Systems	Examine the major questions every economic society faces and explore the different ways traditional, command, and mixed economies answer these questions. (Skill 1.A)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content introduced in this lesson.

Appendices page 2182 Pennwood Cyber Charter School

## Lesson 2: Wrap-Up

#### **Lesson Objectives:**

- Define each key term and concept listed in each lesson of this unit.
- Explain the significance of each key term and concept listed in each lesson of this unit.
- Apply concepts you learned in this unit to specific questions.

Review - What Is Economics?	Review your studies of basic economic terms and concepts presented in this unit.
Practice - What is Economics?	Review common economic terms.
Discuss - Cram Session	Discuss economic terms and other concrete concepts about which you are unclear.
Test - What Is Economics?	Take a 50-minute, teacher-graded test covering the main concepts introduced in this unit. The test includes both multiple-choice and free-response questions.

## **Unit 2: Basic Economic Concepts**

- Big Idea 1, Scarcity and Markets (MKT):
  - o How do individuals and economies confront the problem of scarcity?
  - O Why do people and other countries trade with one another?
- Big Idea 2, Costs, Benefits, and Marginal Analysis (CBA):
  - O Why do all decisions have costs?
  - Why do people consider the additional costs and benefits of possible actions rather than just the total costs and benefits when making decisions?

#### Readings:

- Microeconomics for Today
  - o Pages 6-14, 35-46, 403-413

The content in this unit maps to the following sections of the College Board's Advanced Placement topic outline:

- I. Basic Economic Concepts
  - A. Scarcity, choice, and opportunity cost
  - B. Production possibilities curve
  - C. Comparative advantage, absolute advantage, specialization, and trade
  - E. Property rights and the role of incentives
  - F. Marginal analysis

## Topics covered in this unit:

- Net benefits and Self-interest
- Costs Are Opportunity Costs
- Sunk Costs
- Positive and Normative Economics
- The Production Possibilities Frontier
- PPF and Opportunity Costs
- Absolute and Comparative Advantage
- Trade Between Individuals
- Specialization
- Production Possibilities Frontier for an Economy
- International Trade: A Positive View
- International Trade: A Normative View
- The Scientific Method & Difficulties
- Economics and Special Experimental Difficulties
- Theories and Models
- Four Types of Models

## Lesson 1: Costs, Benefits, and PPF

#### **Lesson Objectives:**

- Relate how scarce resources and unlimited wants make decisions necessary.
- Explain the ideas of self-interest and net benefit.
- Define the concept of opportunity cost.
- Explain sunk costs and relate them to the idea of marginal analysis.
- Distinguish between positive and normative economics.
- Interpret a graph called a *production possibility frontier* and explain how it's used to demonstrate scarcity, choice, and opportunity cost.
- Define the law of increasing opportunity costs.
- Relate the PPF to the concepts of efficiency, opportunity cost, and the law of increasing opportunity cost.

Study - Costs and Benefits	Examine definitions of opportunity costs and sunk costs as well as benefits and the idea of self- interest. Analyze decision alternatives by considering the opportunity costs and by using marginal analysis as well as positive and normative analysis. (Skill 1.B)
Discuss -Weighing Costs and Benefits	Discuss how you would weigh costs and benefits in various situations. (Skill 3.A)
Study - Production Possibilities Frontier	See how economists use a Production Possibilities Frontier (PPF) graph to analyze the opportunity costs of a decision and its efficiency. (Skill 1.C)
Practice – Investigate the PPF	Investigate the PPF curve and factors that affect it in this interactive, scored, online activity. (Skill 3.C)
Practice - Apply Concepts of Basic Economics	Use the tools of the PPF and marginal analysis to answer questions about production, cost, trade, and value. Draw and explain graphs and send your work to your teacher for grading. (Skill 4.A)
Quiz – Wrap-Up	Answer questions to assess your understanding of the content covered in this lesson.

- Define and explain the concept of absolute advantage.
- Define and explain the concept of comparative advantage.
- Explain how specialization causes interdependence and trade.
- Explain why voluntary trade is beneficial to all parties in an exchange.
- Identify the key ideas of national production and trade, including the benefits of specialization, the relationship between economic growth and the PPF, shifts of the PPF, and advantages and disadvantages of free trade.

Study- Individual Production and Trade	Investigate issues related to specialization and trade.
	Explore the use of absolute advantage and comparative
	advantage to rank the ability of producers to create
	goods.
	(Skill 1.A)
Practice - Investigate the Absolute and Comparative	Practice calculating comparative and absolute advantage in
Advantage	this scored, interactive, online activity. (Skill 2.C)
Discuss - Comparative Advantage	With your classmates, raise and discuss questions
	regarding
	comparative advantage. (Skill 1.D)

Study - National Production and Trade	Examine specialization, opportunity costs, and the Production Possibilities Frontier, as they each relate to trade. Analyze production and trade decisions and consider positive and normative views of international trade. (Skill 1.C)
Practice - Apply Concepts of Production and Trade	Apply the concepts of comparative advantage and specialization to questions about individual and national
	production. Send your work to your teacher for scoring. (Skill 2.A)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content presented in this lesson.

#### **Lesson 3: The Scientific Tools of Economics**

## **Lesson Objectives:**

- Describe how economists use the scientific method to study economic problems.
- Recognize research pitfalls.
- Recognize the special difficulties economists face when checking theories and give examples of each.
- Explain how models are used as a simplified representation of reality.
- Explain the two goals of an economic model: explanation and prediction.
- List and explain the four ways that models can be described: verbal, numeric, graphic, and algebraic.

Study - The Scientific Method	See how economists and other scientists use the scientific method to develop theories and test their ideas. Examine definitions of ceteris paribus and self-interest. (Skill 1.A)
Discuss - Economics and the Scientific Method	Discuss the particular challenges faced by economists using the scientific method. (Skill 1.D)
Study - Theories and Models	Explore the various ways ideas can be represented as models. Look at four types of models: verbal, numeric, graphic, and algebraic. List the characteristics of good models and explore the nature of economic models.  (Skill 1.C)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content introduced in this lesson.

## Lesson 4: Wrap-Up

## **Lesson Objectives:**

- Define each key term and concept listed in each lesson of this unit.
- Explain the significance of each key term and concept listed in each lesson of this unit.
- Apply concepts you learned in this unit to specific questions.

Review - Basic Economic Concepts	Review your studies of basic economic concepts as presented in this unit.
Practice - Basic Economic Concepts	Review the key terms and concepts introduced in this lesson.
Discuss - Cram Session	Discuss basic economic concepts and areas about which you are unclear.

Appendices page 2185 Pennwood Cyber Charter School

Test - Basic Economic Concepts	Take a teacher-scored, 50-minute test covering the main
	concepts introduced in this unit. The test includes both
	free-response and multiple-choice items.

# **Unit 3: Demand, Supply, Elasticity, and Choice**

- Big Idea 1, Scarcity and Markets (MKT):
  - o How do individuals and economies confront the problem of scarcity?
  - Why do people and other countries trade with one another?
- Big Idea 4, Market Inefficiency and Public Policy (POL):
  - o How does government policy affect market outcomes?

## Readings:

- Microeconomics for Today
  - o Pages 59-83, 100-110, 124-127, 130-144, 154-161

The content in this unit maps to the following sections of the College Board's Advanced Placement topic outline:

- II. The Nature and Function of Product Markets
  - A. Supply and demand
    - 1. Market equilibrium
    - 2. Determinants of supply and demand
    - 3. Price and quantity controls
    - 4. Elasticity
      - a) Price, income, and cross-price elasticities of demand
      - b) Price elasticity of supply
    - 5. Consumer surplus, producer surplus, and market efficiency
  - B. Theory of consumer choice
    - 1. Total utility and marginal utility
    - 2. Utility maximization: equalizing marginal utility per dollar
    - 3. Individual and market demand curves
    - 4. Income and substitution effects

## Topics covered in this unit:

- Demand Schedule and Curve
- Law of Demand
- Determinants of Demand
- Change in Demand and Change in Quantity Demanded
- Supply and Supply Curve
- Law of Supply
- Determinants of Supply
- Change in Supply and Change in Quantity Supplied
- Markets and Market Equilibrium
- Excess Demand and Excess Supply
- Price Ceilings and Floors
- Price Effect of Change in Demand
- Equilibrium Effect of Change in Supply
- Simultaneous Changes in Demand and Supply
- Price Elasticity of Demand
- Determinants of Price Elasticity of Demand
- Price Elasticity of Supply
- Determinants of Supply Elasticity
- Other Elasticities
- Consumer Surplus

#### Lesson 1: Demand

- Define the economic concept of demand.
- Explain and compile a demand schedule.
- Create a demand curve.
- Define the law of demand.

- Explain the income effect and substitution effect.
- List and explain the determinants of demand.
- Show and explain changes in demand due to changes in the determinants of demand.
- Define different categories of goods: normal and inferior goods and substitute and complement goods.
- State and show graphically the difference between a change in the quantity demanded and a change in demand.

Study - Demand	Explore the basics of consumer demand, model demand in
	a table, and see how to make a demand curve. Develop an
	understanding of the income and substitution effects and
	define demand. (Skill 1.B)
Practice - Investigate Demand	Practice using demand schedules and demand curves in
	this
	scored, online, interactive activity. (Skill 4.B)
Study- Determinants of Demand	See what affects consumer demand and how those
	effects are shown on a graph. Learn about a change in
	quantity demanded versus a change in demand and
	develop an understanding of the determinants of
	demand. Also explore terms used to classify good, such
	as "normal goods,"
	"inferior goods," "complement goods," and "substitute
	goods." (Skill 1.A)
Practice - Investigate Shifts of Demand Curves	Practice shifting demand curves in a scored interactive
	activity. (Skill 4.C)
Practice - Apply Concepts of Demand and Shifts of Demand	Answer questions on demand and the determinants of
Curves	demand. Send your work to your teacher for grading. (Skill
	2.B)
Quiz - Wrap-Up	Answer questions to assess your understanding of the
	content covered in this lesson.

#### **Lesson 2: Supply**

- Define the economic concept of supply.
- Explain and compile a supply schedule.
- Draw a supply curve.
- Define the law of supply, including the role of increasing costs.
- List and explain the determinants of supply.
- Show and explain changes in supply due to changes in the determinants of supply.
- State and be able to represent graphically the difference between a change in the quantity supplied and a change in supply.

Study - Supply	Examine supply curves and see how to make one as you learn about the law of supply.  Define supply and explore how the supply curve is the best choice of quantity at each market price. (Skill 1.B)
Practice - Investigate Supply	Practice using supply schedules and supply curves in this scored online interactive activity. <b>(Skill 2.C)</b>

Study - Determinants of Supply	See what affects suppliers' decisions to make and sell a good or service and how to show the effects graphically. Learn to differentiate between a change in quantity supplied and a change of supply and develop an understanding of the determinants of supply. (Skill 1.B)
Discuss - Another Determinant of Supply?	Explain your opinion about a possible addition to the list of determinants of supply-the number of suppliers in the market. (Skill 2.A)
Practice - Investigate Shifts of Supply Curves	Investigate how to shift supply curves in this scored interactive activity. (Skill 2.C)
Practice - Apply Concepts of Supply and Shifts of Supply Curves	Answer questions on supply and the determinants of supply, provide graphs and explanations, and send your work to your teacher for scoring. (Skill 4.B)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content covered in this lesson.

## **Lesson 3: Market Equilibrium and Price Determination**

## **Lesson Objectives:**

- Define markets and the idea of market competition.
- Define and explain equilibrium price and equilibrium quantity, and explain why equilibrium is a stable condition, ceteris paribus.
- Explain how demand and supply interact to determine equilibrium price and equilibrium quantity.
- Explain excess demand and excess supply.
- Explain the effect of a price ceiling on a market and define a shortage.
- Explain the effect of a price floor on a market and define a surplus.
- Predict and show graphically the effect of a change in demand, a change in supply, or a change in both on the equilibrium price and equilibrium quantity.
- Explain the adjustment process in the market when supply changes, demand changes, or both changes.

Study - Market Equilibrium	Look at supply and demand curves together as you explore the concept of market equilibrium. Develop an understanding of how price ceilings and price floors affect the market and how price functions to ration a product. (Skill 3.B)
Practice - Investigate Market Equilibrium	Practice finding and indicating market equilibrium in an online interactive scored activity. (Skill 3.B)
Study- Changes in Equilibrium	See how changes in supply and demand affect market equilibrium and investigate price floors and price ceilings. (Skill 3.B)
Practice - Investigate Changes in Equilibrium	Practice shifting supply and demand curves and notice how the shifts affect market equilibrium in this scored interactive activity. (Skill 3.B)
Practice - Apply Concepts of Market Equilibrium	Answer questions about market equilibrium, focusing on issues of price floors and ceilings and the adjustment to equilibrium. Send your work, including graphs and explanations, to your teacher for grading. (Skill 4.B)

Appendices page 2189 Pennwood Cyber Charter School

Quiz - Wrap-Up	Answer questions to assess your understanding
	of the content introduced in this lesson.

# **Lesson 4: Elasticity and Consumer Choice**

# Lesson Objectives:

- Define elasticity.
- Calculate price elasticity of demand and explain the relationship between elasticity and total revenues.

Appendices page 2190

- Explain the differences between elastic, inelastic, and unit elastic demand.
- Identify and explain the determinants of price elasticity of demand.
- Calculate and explain price elasticity of supply.
- Explain the characteristics of an elastic, inelastic, and unit elastic supply.
- Explain the determinants of the elasticity of supply.
- Explain income elasticity of demand and relate it to normal and inferior goods.
- Explain cross-price elasticity of demand and relate it to substitute and complement goods.
- Define utility and explain how it's measured and used.
- Explain the differences between marginal utility and total utility.
- Relate the concepts of utility to the shape of the demand curve.
- Explain the relationship between the downward-sloping demand curve and the law of diminishing marginal utility.
- Explain the relationship between allocating income and maximizing utility using marginal utility per dollar.
- Explain and show consumer surplus graphically.

Study - Price Elasticity of Demand	See how to measure consumer sensitivity to price changes. Differentiate between elastic, inelastic and unit elastic demand. Explore the determinants of price elasticity of demand and the relationship between elasticity and total revenue. (Skill 1.A)
Practice - Investigate Elasticity of Demand	Investigate elasticity of demand as well as the relationship between elasticity and total revenue in this online interactive activity. (Skill 1.D)
Study - Price Elasticity of Supply and Other Elasticities	Examine producer sensitivity to price changes, consumer sensitivity to income and the prices of related goods. Differentiate between elastic, inelastic and unit elastic supply. Explore the determinants of price elasticity of supply and how income elasticity of demand is used to categorize goods as normal or inferior. Also, explore how cross- price elasticity of demand is affected by the change in price of a complement, substitute and non-related good. (Skill 2.B)
Practice - Investigate Elasticity of Supply and Other Elasticities	Practice calculating price elasticity of supply, and examine income and cross-price elasticity in this scored interactive activity. (Skill 2.C)
Practice - Apply Concepts of All Elasticities	Answer questions about price elasticity of supply and demand, income elasticity of demand, and crossprice elasticity of demand. Submit your work to your teacher for evaluation (Skill 3.A)
Study - Utility	Examine the concepts behind the economic definition of consumer satisfaction: utility and consumer choice. Define marginal and total utility and explore how knowing these help consumers maximize utility. Also define and calculate consumer surplus. (Skill 1.A)
Practice - Investigate Utility and Consumer Surplus	Practice using the ideas of utility, and explore consumer surplus on a graph in an interactive scored activity. <b>(Skill 4.C)</b>
Quiz - Wrap-Up	Answer questions to assess your understanding of the content introduced in this lesson.

Appendices page 2191

## Lesson 5: Wrap-Up

#### **Lesson Objectives:**

- Define each key term and concept listed in each lesson of this unit.
- Explain the significance of each key term and concept listed in each lesson of this unit.
- Apply concepts you learned in this unit to specific questions.

	Review your studies of demand, supply, elasticity, and consumer choice as presented in this unit.
Choice	Review common terms (referring to demand, supply, elasticity, and consumer choice) introduced in this unit.
	Discuss demand, supply, elasticity, and consumer choice and any areas about which you are unclear.
	Take a teacher-scored, 50-minute test covering the main concepts introduced in this unit. It includes both multiple-choice and freeresponse questions.

## Unit 4: Firm Production, Costs, and Revenue

- Big Idea 2, Costs, Benefits, and Marginal Analysis (CBA):
  - o How do businesses use marginal analysis to make decisions?
- Big Idea 3, Production Choices and Behavior (PRD)
  - What drives producers' decision making?
  - o How can a market be perfectly competitive?

#### Readings:

- Microeconomics for Today
  - o Pages 180, 182-197

The content in this unit maps to the following sections of the College Board's Advanced Placement topic outline:

- II. The Nature and Function of Product Markets
  - D. Production and costs
    - 1. Production functions: short and long run
    - 2. Marginal product and diminishing returns
    - 3. Short-run costs
    - 4. Long-run costs and economies of scale
  - E. Firm behavior and market structure
    - 1. Profit:
      - a. Accounting versus economic profits
      - b. Normal profit

#### Topics covered in this unit:

- Firms
- Sole Proprietorship, Partnerships, and Corporations
- Other Business Organizations
- Explicit and Implicit Costs
- Measures of Profit
- Production in the Short Run
- Fixed and Variable Resources
- Law of Diminishing Marginal Returns

- Total, Marginal, and Average Product Curves
- Short Run and Long Run Cost Curves
- Economies and Diseconomies of Scale

#### **Lesson 1: Firm Production**

#### **Lesson Objectives**

- Define the most common legal forms of business organization.
- Define explicit and implicit costs and relate these costs to the different types of profits-accounting profit, economic profit, and normal profit.
- Define the difference between the long run and the short run.
- Define marginal product and relate changes in marginal product to changes in total product, or total production.
- Explain increasing and decreasing marginal returns.

Study - Business Organization	Explore the three most common legal forms of business organizations - sole proprietorship, partnership, and corporation - and the advantages and disadvantages of each. (Skill 1.A)
Study - Costs and Profits	Examine the concepts behind the economic definition of costs and profits. Learn about three kinds of profit: accounting profit, normal profit, and economic profit and learn about implicit costs.  (Skill 1.A)
Discuss - Costs and Profits of Your Own Business	Choose a type of organization for your own business and discuss issues of cost and profit. (Skill 2.A)
Study - Production in the Short Run	See how firms make their decisions about production in the short run. Explore difference between the short run and the long run and the difference between variable and fixed factors of production. Examine how diminishing marginal product relates to cost and learn how the marginal and average product curve relate to one another and to the total product curve. (Skill 1.B)
Practice - Investigate Production in Short Run	Practice creating marginal product curves, and answer questions about the production of a firm in the short run in this interactive scored exercise.  (Skill 4.A)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content covered in this lesson.

## Lesson 2: Costs in the Short Run and the Long Run

# Lesson Objectives:

- Define, calculate, and graph total fixed cost, total variable cost, marginal cost, and total cost.
- Define, calculate, and graph average fixed cost, average variable cost, and average total cost.
- Explain the relationship between marginal cost and marginal returns.
- Explain the relationship between marginal cost and average variable cost, and marginal cost and average total cost.
- Explain the relationship between the firm's short-run and long-run average-total-cost curves.
- Define economies and diseconomies of scale, and list some of the sources of each.

Appendices page 2193 Pennwood Cyber Charter School

- Relate economies of scale to the number of firms in an industry.
- Explain how the shape of the long-run average-total-cost curve is influenced by economies of scale, diseconomies of scale, and constant returns to scale.

Study - Costs in the Short Run	Examine the costs a firm faces in the short run. Learn about the difference between fixed costs and variable costs. Explore several "total" and "average" costs based on fixed and variable cost. Learn how fixed, variable, and marginal costs change with production and differentiate between marginal and average costs. (Skill 1.C)
Practice - Investigate Costs in the Short Run	Practice using tables and graphs with the different short-run cost information for a firm in an interactive scored exercise. (Skill 4.C)
Study - Costs in the Long Run	Focus on the long-run costs of a firm, particularly a firm's long-run average cost curve and see how the shape of this curve is affected by "economies of scale." Explore how economies and diseconomies of scale relate to increasing and decreasing marginal returns and how the long-run average cost curve relates to the short-run average cost curves. (Skill 1.B)
Practice - Investigate Costs in the Long Run	In this interactive scored exercise, practice identifying economies of scale and use short-run cost curves to create a long-run cost curve. (Skill 2.C)
Practice - Apply Concepts of Short-Run Costs, Long-Run Costs, and Profit	Answer questions about the production and costs faced by a firm in the long and short run. Submit your work, including tables and graphs, to your teacher for grading. (Skill 4.B)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content covered in this lesson.

# Lesson 3: Wrap-Up

## Lesson Objectives:

- Define each key term and concept listed in each lesson of this unit.
- Explain the significance of each key term and concept listed in each lesson of this unit.
- Apply concepts you learned in this unit to specific questions.

Review - Firm Production, Costs, and Revenue	Review your studies of production and costs as covered in this unit.
Practice - Firm Production, Costs, and Revenue	Review common terms referring to production and costs introduced in this unit.
Discuss - Cram Session	Discuss production and costs and any areas about which you are unclear.
Test - Firm Production, Costs, and Revenue	Take a teacher-graded, 50-minute test covering the main concepts introduced in this unit. The test includes both multiple-choice and free-response items.

# **Unit 5: Market Structure**

- Big Idea 3, Production Choices and Behavior (PRD)
  - What drives producers' decision making?
  - o How are imperfectly competitive markets inefficient?

Appendices page 2195 Pennwood Cyber Charter School

#### Readings:

- Microeconomics for Today
  - o Pages 110-112, 211-231, 240-259, 268-286, 348-362

The content in this unit maps to the following sections of the College Board's Advanced Placement topic outline:

- II. The Nature and Function of Product Markets
  - D. Firm behavior and market structure (25-35%)
    - 1. Profit
      - a. Profit maximization: MR=MC rule
    - 2. Perfect competition
      - a. Profit maximization
      - b. Short-run supply and shutdown decision
      - c. Behavior of firms and markets in the short run and in the long run
      - d. Efficiency and perfect competition
    - 3. Monopoly
      - a. Sources of market power
      - b. Profit maximization
      - c. Inefficiency of monopoly
      - d. Price discrimination
      - e. Natural monopoly
    - 4. Oligopoly
      - a. Interdependence, collusion, and cartels
      - b. Game theory and strategic behavior
    - 5. Monopolistic competition
      - a. Product differentiation and role of advertising
      - b. Profit maximization
      - c. Short-run and long-run equilibrium
      - d. Excess capacity and inefficiency

#### Topics covered in this unit:

- Perfectly Competitive Markets
- Short-Run Competition and Profits
- Minimizing Short-Run Losses
- Long-Run Perfect Competition
- Efficiency
- Monopoly and Monopolistic Marginal Revenue
- Monopolistic Profit Maximization, Efficiency, and Competition
- Price-Discriminating Monopolies
- Natural Monopolies and Product Differentiation
- Oligopoly and Market Concentration
- Oligopolistic Profit Maximization
- Oligopoly Models
- Oligopoly and Perfect Competition
- Perfect Competition and Monopolistic Competition
- Mergers
- Government Regulation, Antitrust Legislation, and Deregulation

#### **Lesson 1: Perfect Competition**

- List the characteristics of perfect competition.
- State why price, marginal revenue, and demand are all equal for a perfectly competitive firm.

- Explain and graphically show profit maximization for a perfectly competitive firm, including the market supply and demand curves and the firm's demand, marginal revenue, marginal cost, average-variable-cost, and average-total- cost curves.
- Show the profits of a perfectly competitive firm on a graph and show the break-even and shutdown points for the firm in the short run.
- Derive the short-run supply curve for a firm in a perfectly competitive market and the short-run market supply curve in a perfectly competitive market.
- Explain the difference between economic profits in the short run and in the long run for a perfectly competitive firm and explain the relationship between economic profits and free entry and exit that brings about long-run equilibrium.
- Describe the long-run supply curves for constant cost, increasing cost, and decreasing cost industries.
- Relate allocative efficiency to the perfectly competitive market.

Study - Perfect Competition, Part 1	Explore the characteristics of perfectly competitive markets, including why perfectly competitive firms can't set their own prices. Focus on is the relationship between price, marginal revenue, and demand in the context of a perfectly competitive firm. Learn how to determine the price and output of a perfectly competitive firm in the short run. (Skill 1.A)
Practice - Investigate Perfect Competition, Part 1	Investigate the characteristics of the perfect competition market structure and practice calculating profit maximization in this scored interactive exercise. (Skill 2.C)
Study - Perfect Competition, Part 2	Discover how perfectly competitive firms operate, look into the questions of when a perfectly competitive firm will choose to shut down and at what levels of output they break even or make a profit, and discuss why perfectly competitive firms make only a normal profit in the long run. (Skill 1.A)
Practice - Investigate Perfect Competition, Part 2	In this interactive, scored activity, practice working with the perfect competition graphs, including the long-run situation and the issue of efficiency. (Skill 3.C)
Practice - Apply Concepts of Perfect Competition	Answer questions about perfect competition and sent your work, including graphs, to your teacher for grading. (Skill 4.B)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content covered in this lesson.

#### **Lesson 2: Monopoly and Monopolistic Competition**

#### Lesson Objectives:

- Explain the characteristics of a monopoly.
- Calculate, graph, and explain the relationship between a monopoly's demand curve, its marginal revenue curve, and its average revenue curve.
- Demonstrate graphically the monopoly's profit-maximizing price and output level.
- Show on a graph the monopolist's profits and determine the location of the ATC and AVC that will cause the firm to operate at a loss or shut down.
- Explain why monopolists don't have supply curves.

Appendices page 2197

•	Explain how and why a monopoly may produce with allocative inefficiency.

- Explain how and why a monopoly may produce with productive inefficiency.
- Define price discrimination and explain the market conditions that allow price discrimination to occur.
- Explain the costs and benefits of price discrimination to firms and consumers.
- Explain why the government grants exclusive rights to natural monopolies in exchange for the right to regulate production and pricing of these companies on the goods and services they provide.
- Describe government regulation of natural monopolies.
- Define the characteristics of monopolistic competition.
- Determine the output, price charged, and profit of a monopolistic competitor in both the short run and long run.
- Define market power and explain how product differentiation increases a monopolistic competitor's market power.
- Explain allocative and productive efficiency in a monopolistic competition market.

Study - Monopoly	Discuss the characteristics of monopolies, as well as the conditions that make a monopoly possible. Look at the relationship between the demand curve and marginal- revenue curve in the context of a monopoly. Learn how monopolies choose their price and output levels and explore why some people say that monopolies are inefficient. (Skill 1.A)
Practice - Investigate Monopoly	Inthisonline, interactive, scored exercise, practice drawing marginal-revenue curves, and find the profit-maximizing levelofoutput foramonopolist. (Skill 4.A)
Study - Monopolies: Special Cases	Examine the basics of price discrimination, discuss how governments regulate monopolies and learn about natural monopolies. (Skill 1.A)
Practice - Investigate Natural and Price- Discriminating Monopolies	Investigate the cost curves of a natural monopoly, and work on profit maximization when the monopolist can price discriminate in this scored interactive exercise. (Skill 2.C)
Practice - Apply Concepts of Monopolies	Answer questions about monopolies and send your work, including graphs, to your teacher for grading. (Skill 4.B)
Study - Monopolistic Competition	Examine themonopolistic competition market and find out about product differentiation. Consider the market conditions that must exist for a market to be monopolistically competitive and how these competitors can increase their market share as well as how they set their output to maximize profit. Also, you will learn how to identify monopolistic competitors. (Skill 3.B)
Practice - Investigate Monopolistic Competition	Practice finding the profit-maximizing level of output for a monopolistic competitor, and answer questions about that market structure in this scored interactive activity. (Skill 3.C)
Quiz – Wrap-Up	Answer questions to assess your understanding of the content presented in this lesson.

#### Lesson 3: Oligopoly

Lesson Objectives:

•	Explain the characteristics of an oligopoly.	

- Explain how interdependence among firms in an oligopoly leads to strategic behavior by those firms.
- Analyze cartels and explain the incentives to cheat on a collusive agreement.
- Explain the game theory approach to pricing in an oligopoly, including the prisoner's dilemma and tacit collusion.
- Describe the price leadership, or dominant firm, model of an oligopoly.
- Describe cost-plus pricing.
- Use the kinked demand curve model to explain price stability in an oligopoly.

Study - Oligopoly	See the main characteristics of an oligopoly and find out about profit maximization in an oligopoly.  Consider how oligopolists set their prices and output levels. (Skill 1.A)
Practice - Investigate Oligopoly	Answer questions about oligopolies in a scored interactive exercise. (Skill 1.A)
Study - Oligopoly Models	Examine how to categorize the main types of oligopoly interaction. Look at how interdependence affirms can lead to collusion, price leadership, or price rigidity among the firms. Learn about cost-plus pricing, kinked demand curves, cartels and game theory. (Skill 1.D)
Practice - Investigate Oligopoly Models	While examining the different oligopoly models in this scored interactive activity, practice working with graphs and tables. (Skill 2.C)
Practice - Apply Concepts of Oligopoly and Oligopoly Models	Answer questions about the oligopoly market structure and send your work, including graphs, to your teacher for grading. (Skill 4.B)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content covered in this lesson.

### **Lesson 4: Comparing Markets and Imperfect Competition**

#### Lesson Objectives:

- Understand the differences and similarities between the four basic market structures.
- Explain market concentration and the relationship between market concentration and market power.
- List and explain the three types of mergers.
- Explain the reasons for government regulation.
- List and explain the major antitrust laws.
- State the reasons the government is currently deregulating many industries.

Study - Market Structures and Mergers	Review the four market structures and their characteristics and explore the role of mergers in marketstructures. Differentiate betweenthethree types of mergers-horizontal, vertical, and conglomerate. (Skill 1.D)
Practice - Investigate the Different Market Structures	In this interactive scored exercise, work with graphs showing all the market structures and investigate their similarities and differences. (Skill 2.C)

Study- Government and Imperfect Competition	See what actions the government takes to limit anti- competitive practices in the market and examine the major antitrust legislation that's been passed in the U.S. Explore the pros and cons of government regulation of firms. (Skill 1.B)
Discuss - Market Structures	With your classmates, discuss issues related to the main types of market structures. (Skill 1.D)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content presented in this lesson.

### Lesson 5: Wrap-Up

#### Lesson Objectives:

- Define each key term and concept listed in each lesson of this unit.
- Explain the significance of each key term and concept listed in each lesson of this unit.
- Apply concepts you learned in this unit to specific questions.

Review - Market Structure	Review your studies of perfect competition, monopoly, and oligopoly as presented in this unit.
Practice - Market Structure	Review common terms referring to market structure.
Discuss - Cram Session	With your classmates, discuss market structure and any areas about which you are unclear.
Discuss - You Be the Teacher!	Make suggestions for completing a correctly answered but incomplete AP-style question about a perfectly competitive market.
Test - Market Structure	Take a 50-minute, teacher-scored test covering the main concepts introduced in this unit. Both multiple-choice and free-response questions are included.

### **Unit 6: Factor Markets**

- Big Idea 3, Production Choices and Behavior (PRD)
  - O How are prices for resources determined?
  - O How do firms use resource prices to make decisions?

#### Readings:

- Microeconomics for Today
  - o Pages 294-310

The content in this unit maps to the following sections of the College Board's Advanced Placement topic outline:

- III. Factor Markets
  - A. Derived factor demand
  - B. Marginal revenue product
  - C. Labor market and firms' hiring of labor
  - D. Market distribution of income

#### Topics covered in this unit:

- Derived Factor Demand
- Marginal Revenue Product
- Marginal Cost
- Shifts of Factor Demand
- Determinants of Elasticity of Factor Demand

Appendices page 2202 Pennwood Cyber Charter School

- Allocation of Resources
- Wages, Salaries, and Earnings

- Labor and Market Structures
- Labor Unions
- Rent
- Interest
- Profit

#### **Lesson 1: Derived Factor Demand**

#### **Lesson Objectives**

- Define derived demand and explain why the demand for a factor of production is a derived demand.
- Explain why the price of resources is important.
- Construct and explain a marginal-physical-product curve and a marginal-revenue- product curve, assuming perfect competition in both factor and product markets.
- Construct a marginal-physical-product curve and a marginal-revenue-product curve, assuming imperfect competition in both factor and product markets; compare this with the same graph for a situation of perfect competition in both markets.
- Explain the principle a profit-maximizing firm uses to determine the quantity of a resource to employ.
- Explain the relationship between the marginal revenue product and the demand for an input and relate the factor demand to the idea of diminishing marginal returns.
- State reasons for a change in factor demand.
- List and explain the determinants of elasticity of factor demand.
- Explain the method for finding the least-cost combination of resources and demonstrate your ability to use it.
- Explain the method of maximum-profit combination of resources and demonstrate your ability to use it.

Study-Factor Demand, Part 1	Discuss the marginal revenue product and marginal resource cost and examine the derived factor demand curve and its relationship to the marginal revenue product curve. (Skill 1.C)
Practice - Investigate Factor Demand	Practice deriving a factor demand curve in this scored interactive activity. (Skill 3.C)
Study- Factor Demand, Part 2	Explore the determinants of factor demand and the determinants of the elasticity of factor demand. (Skill 1.C)
Practice - Investigate Shifts in Factor- Demand Curves	Draw shifts in the factor demand curve and calculate elasticity of factor demand in an interactive exercise. (Skill 4.A)
Practice - Apply Concepts of Factor Demand	Answer questions on derived factor demand and send your work to your teacher for a grade. (Skill 2.C)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content covered in this lesson.

#### **Lesson 2: Special Topics in Factor Demand**

### Lesson Objectives:

- Explain the difference between wages, salaries, and earnings.
- Explain why wages differ among occupations and workers.
- Compare the wage level and level of employment in a competitive labor market to those levels in a monopsonistic labor market.
- Analyze the effects of minimum wage laws on labor markets.
- Analyze the effects of labor unions on labor markets.
- Define economic rent.
- Explain what determines the amount of economic rent paid.
- Define interest, interest rate, nominal interest rate, and real interest rate; relate interest to the loanable funds
  market where money is borrowed for the purchase of capital goods, and money is loaned in return for interest.

Study - Labor	Examine the main issues regarding the demand for labor, including labor unions and monopsonistic labor markets. Differentiate between wages, salaries, and earnings, or compensation and discuss the reasons a worker would take a lower paying job over a higher paying job. Explore the characteristics of a perfectly competitive labor
	market and see how these differ from a labor market in which there's only one buyer of labor and examine the effect minimum wage laws and unions have on employment and wage levels. (Skill 1.A)
Practice - Investigate Labor Markets	In this scored, interactive activity, compare the outcomes of a regular labor market with a monopsonistic labor market, and answer questions about labor unions. (Skill 2.C)
Study - Rent, Interest, and Profit	Explore the main issues regarding the non-labor factors of production in the factor market: land, capital and entrepreneurial talent. Explore the markets for land and capital, including the payments made to the owners of capital. Consider interest rates and the role of inflation. Discuss economic rent, especially in relation to non-renewable resources. And finally, learn the different measures of profit and the role profit plays in resource allocation. (Skill 1.D)
Practice - Apply Concepts of Factor Demand	Answer questions about the demand for the factors of production and send your work to your teacher for scoring. (Skill 2.B)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content presented in this lesson.

### Lesson 3: Wrap-Up

#### Lesson Objectives:

- Define each key term and concept listed in each lesson of this unit.
- Explain the significance of each key term and concept listed in each lesson of this unit.
- Apply concepts you learned in this unit to specific questions.

Review – Factor Markets	Review our studies of factor demand as presented in this unit.
Practice - Factor Markets	Review common terms referring to factor markets.
Discuss - Cram Session	With your classmates, discuss factor markets and any areas about which you are unclear.
Discuss - You Be the Teacher!	Make suggestions for completing a correctly answered but incomplete AP-style question about the labor market.
Test - Factor Markets	Take a 50-minute, teacher-graded test covering the main concepts introduced in this unit. The testincludes both multiple-choice and free-responseitems.

## **Unit 7: Efficiency, Equity, and the Government**

- Big Idea 4, Market Inefficiency and Public Policy (POL):
  - O How do markets fail?
  - O What role should the government play in markets?

Appendices page 2205 Pennwood Cyber Charter School

#### Readings:

- Microeconomics for Today
  - o Pages 100-117, 145-146, 321-337, 359-365, 372-392

The content in this unit maps to the following sections of the College Board's Advanced Placement topic outline:

#### IV. Market Failure and the Role of Government

- A. Externalities
  - 1. Marginal social benefit and marginal social cost
  - 2. Positive externalities
  - 3. Negative externalities
  - 4. Remedies
- B. Public goods
  - 1. Public versus private goods
  - 2. Provision of public goods
- C. Public policy to promote competition
  - 1. Antitrust policy
  - 2. Regulation
- D. Income distribution
  - 1. Equity
  - 2. Sources of income inequality

#### Topics introduced in this unit:

- Market Failures
- Externalities
- Public Goods
- Government Intervention
- Income Distribution
- Poverty
- Taxes

#### **Lesson 1: Market Failures**

### Readings:

- Microeconomics for Today
  - o Chapter 12: Income Distribution, Poverty, and Discrimination
  - o Chapter 13: Antitrust and

#### **Regulation Lesson Objectives:**

- Define externalities.
- Explain the government's role in correcting for negative externalities and increasing the incidence of positive externalities.
- Define public goods and explain how and why the government provides public goods.
- List and explain the sources of market failure.
- Analyze the effectiveness of government intervention in remedying market failures.

Study - Externalities and Public Goods	Examine positive and negative externalities, and the
	role of government intervention in the case of market
	failures. Define non-rival consumption and non-
	exclusionary consumption and use these definitions
	to
	determine whether a good is public or private. (Skill
	1.A)

Practice - Investigate Externalities and Public Goods	In this scored interactive exercise, investigate and answer questions about the role and definition of externalities and public goods.  (Skill 1.B)
Practice - Bring Together Externalities and Public Goods	Answer in-depth questions on externalities and the role of government in providing public goods. Then send your work to your teacher for grading. (Skill 1.A)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content presented in this lesson.

#### **Lesson 2: Distribution of Income**

#### Readings:

- Microeconomics for Today
  - o Chapter 12: Income Distribution, Poverty, and

## Discrimination Lesson Objectives:

- Measure an economy's income distribution using a Lorenz curve.
- Explain the distribution of wealth in the economy.
- Define poverty and describe methods of addressing the issue of poverty.
- Explain tax incidence.
- Explain tax equity.
- Define and explain the differences between progressive, proportional, and regressive taxes.

Study- Income Distribution and Taxes	See how income is spread through the U.S. economy and learn about the different types of taxation. Explore Lorenz curves, examine poverty, the role of government in income distribution, and the economics of taxation.  Explore the problems inherent in using Lorenz curves as measures of income inequality and differentiate between proportional, progressive, and regressive policies. (Skill 1.C)
Practice - Investigate Taxes and Income Distribution	In this interactive scored exercise, practice working on a graph of the Lorenz curve, answer questions about the different types of taxes, and consider issues of redistribution and equity. (Skill 4.A)
Practice -Apply Concepts of Taxes and Income Distribution	Answer questions on taxes and income distribution and send your work to your teacher for scoring. (Skill 1.C)
Discuss - Your Opinion Counts: The Government and the Economy	Share and defend your opinions regarding the role of government in the economy or about the distribution of income. (Skill 1.D)
Quiz - Wrap-Up	Answer questions to assess your understanding of the content introduced in this lesson.

#### Lesson 3: Wrap-Up

#### Lesson Objectives:

- Define each key term and concept listed in each lesson of this unit.
- Explain the significance of each key term and concept listed in each lesson of this unit.
- Apply concepts you learned in this unit to specific questions.

Review - Efficiency, Equity, and the Role of Government	Review your studies of efficiency, equity, and the role of
	government as presented in this unit.

Practice - Efficiency, Equity, and the Role of Government	Review terms referring to efficiency, equity, and the role of government.
Discuss - Cram Session	With your classmates, discuss efficiency, equity, the role of government, and any areas about which you are unclear.
Discuss - You Be the Teacher!	Make suggestions for completing a correctly answered but incomplete AP-style question about the labor market.
Test - Efficiency, Equity, and the Role of Government	Take a50-minute, teacher-gradedtestabout the main concepts introduced in this unit. It includes both multiple- choice and free-response items.

#### **Unit 8: Preparing for the AP Exam**

No new content is introduced in this unit.

#### Lesson 1: Comprehensive Microeconomics Review and AP Exam Practice

#### Lesson Objectives:

- Describe the format of the AP Microeconomics Exam.
- Develop a plan for how you're going to study between now and exam day.
- Define and explain the significance of each key term and concept introduced in this course.
- Apply the concepts you've learned to specific questions.
- Apply your knowledge to questions that may look new on the surface but can be analyzed and answered using skills and knowledge you've gained in this course.
- Manage your time effectively as you prepare for, and take, the Final Exam and the AP Exam.

Study - AP Exam Preparation	Learn some tips and hints you can use while for preparing to take the AP Exam.
Review - Microeconomics	Review your studies of microeconomics in preparation for the AP Exam.
Quiz - Practice Multiple-Choice Questions	Answer multiple-choice questions covering material about microeconomics as a warm-up for taking the exam.
Discuss - Any Questions?	Raise questions concerning material you studied in this course before taking the Final Exam.
Final Exam - Microeconomics	Take the 135-minute, teacher-graded Final Exam that includes multiple-choice and free-response questions and includes a reading p`eriod.

Appendices page 2208 Pennwood Cyber Charter School

# **AP Psychology**



## **AP Psychology**

## **Course Overview**

Name	AP Psychology
Description	AP Psychology provides an overview of current psychological research methods and theories. Students will explore the therapies used by professional counselors and clinical psychologists and examine the reasons for normal human reactions: how people learn and think, the process of human development and human aggression, altruism, intimacy, and self-reflection. They'll study core psychological concepts, such as the brain and sense functions, and learn to gauge human reactions, gather information, and form meaningful syntheses. Along the way, students will also investigate relevant concepts like study skills and information retention. The equivalent of a 100 level college survey course, AP Psychology prepares students for the AP Exam and for further studies in psychology and life sciences.  The content aligns to the scope and sequence specified by the College Board and to widely used textbooks
Teacher Role	All students enrolled in this course are assigned to a "section" and have a teacher who is charged with ensuring student success and addressing student questions, problems, and concerns. In addition, all students have a "mentor" who is available in their school or home and helps keep the student on track for completing the materials in a timely manner.
Prerequisites	<ul><li>Biology</li><li>Recommended for qualified AP students</li></ul>
Length	One Semester
Materials	The majority of the required instructional material for this course is available to students online. These materials were created and owned by our company. In addition, either the student or the school must purchase the following:  Myers, David G. <i>Psychology</i> . 12th Ed. New York: Worth Publishing, 2017. Also acceptable: 11th Ed., 2015. <b>(CR1)</b>

The following key should help you understand the different types of activities students engage in during the course:

Activity Type	Description
Discuss	Students discuss topics in an online bulletin-board style forum. Teachers participate
	in these discussions as well and students receive credit for their participation.
Explore	Students are provided with links to sites on the World Wide Web where they can do research or learn more about a particular topic.
Practice	Students answer questions regarding what they have learned thus far.
Quiz	Computer-administered and automatically graded assessment.
Review	Review of the material covered in a unit or over a semester.
Study	Primary instructional online content that teaches new concepts through
	multimedia and interactivity.
Quiz	Assessment covering the material introduced in a unit.

Appendices page 2210 Pennwood Cyber Charter School

#### **Skill Category Activities:**

Below are descriptions of several activities that meet Skill Categories 1-3 (CR's 3-5). Additional activities that meet each skill are labeled with the corresponding CRs and skills in the course syllabus in the following section.

**Skill Category 1:** Define, explain, and apply concepts, behavior, theories, and perspectives, as outlined in the AP Course and Exam Description (CED).

- 1.1.4 Study: Modern Perspectives in Psychology: In this assignment, students define and explain the eight most common perspectives of psychology through interactive assignments. These include short answer responses, drag and drop activities, and compare and contrast writing.
  - **1.1.5 Practice: Comprehension Check:** Students apply the concepts they learned in the previous Study assignment as they respond to a short quiz on the eight common perspectives.
- 3.1.3 Study: Operant Conditioning: In this assignment students learn about and respond to
  questions about different aspects of operant conditioning and the theories and principles
  behind it.
  - **3.1.5 Discuss: Conditioning:** In a follow-up class discussion to the previous Study assignment, students apply the principles of operant conditioning to discuss how they would treat and cure phobias or bad habits.

**Skill Category 2:** Analyze and interpret quantitative data, as outlined in the AP Course and Exam Description (CED).

- 1.2.3 Study: Observational Studies: In this assignment students are introduced to sampling and studies and the bias that can occur. Students are asked to look at sample quantitative data from a census and analyze and interpret it.
- 1.3.2 Study: The Normal Distribution z-Scores and Percentiles: In this assignment, students
  must look at and analyze the quantitative data provided in various frequency plots of
  distribution about people attending a live music show.
  - **1.3.3: Practice: Descriptive Statistics:** Building off of what students learned in the previous Study assignment, students are now asked to read a chapter on descriptive statistics in which they must compute and interpret quantitative data in the form of histograms and frequency tables.

**Skill Category 3**: Analyze psychological research studies, as outlined in the AP Course and Exam Description (CED).

- 1.2.9 Practice: Evaluating Scientific Information: In this assignment, students choose one of
  five provided psychological studies and are asked to assess and analyze the study. Students are
  provided with a dozen short analysis questions to respond to, culminating with a paragraph
  response that
  - synthesizes the information they've gathered about the psychological study.
- 3.1.2 Explore: Little Albert and the Classical Conditioning of a Phobia: In this assignment, students explore The Little Albert Experiment as it relates to classical conditioning and phobias and complete a worksheet with several short answer analysis questions about the study, including one about methodology and how/if the same methodology could be used today considering review board standards and processes.

## **Course Syllabus**

## Unit 1: History and Perspectives of Psychology (CED Unit 1)

## **Lesson 1: History and Perspectives of Psychology**

Study — Development of Psychology as a	Learn about the development of psychology from
Science	early philosophy to modern science. (CR3 – Skill Category 1)
Explore – What Do You Know about	Take a quick quiz on common sense and find out
Psychology? A Common Sense Test	what you might already know about psychology.
Discuss – Getting Acquainted	Introduce yourself to students and instructor.
	Share information about yourself, your school, and
	your interest in psychology.
Study — Modern Perspectives in Psychology	Learn about eight of the most common
	perspectives in modern psychology:
	psychodynamic, behavioral, cognitive,
	humanistic, biomedical, evolutionary, socio-
	cultural, and social
	cognitive. (CR3 – Skill Category 1)
Practice — Comprehension Check	Answer questions to assess your understanding
	of the history and perspectives of psychology.
	(CR3 – Skill Category 1)
Study — Fields in Psychology	Learn about psychologists, psychiatrists, and
	counselors as well as the types of settings in
	which they work. (CR3 – Skill Category 1)
Practice — Careers in Psychology	Match psychology jobs to their functions (for
	example, neuropsychologists study brain
	function and how they influence behavior). (CR3 –
	Skill Category 1)
Practice – Identifying Perspectives in	Look at some case studies and explain the
Psychology	reasons why people act as they do. (CR5 – Skill
	Category 3)
Quiz – Comprehension Check	Answer questions to assess your
	understanding of the history and
	perspectives of psychology introduced in
	this lesson.

## **Lesson 2: Research Methods**

Study — Introduction to Psychological	Get some explanations regarding the world of
Research	psychological research. (CR3 – Skill Category 1)

Explore — Why Learn about Psychological Research? An Introduction	Learn the key elements of how research should be conducted and designed so that you can better evaluate reports that may seem confusing. (CR3 – Skill Category 1)
Study — Observational Studies	Learn about surveys and other types of Information-gathering studies where the researcher does not exert control over the subjects. (CR4 – Skill Category 2)
Study — Experiments	Learn about studies where the researcher exerts control over the subjects and observes how they react. (CR5 – Skill Category 3)
Study — Hypothesis Testing	How science answers important 'yes or no' questions: setting up hypotheses, significance testing, and hypothesis testing in the real world. (CR3 – Skill Category 1)
Explore — Hypothesis Testing in Current Research	Explore current research and gain a deeper understanding of hypothesis testing and statistical significance. (CR4 – Skill Category 2, CR5 – Skill Category 3)
Study — Correlational Research	Learn how to analyze the relationship between two variables (for example, between TV watching and grades). (CR3 – Skill Category 1, CR4 – Skill Category 2)
Practice — Evaluating Research Design and Ethics	Evaluate the research design and ethical standards of several research proposals. (CR5 – Skill Category 3)
Practice — Fact from Fiction: Evaluating Scientific Information	Evaluate the quality of information from credible and non-credible sources and see how the source affects what you read or hear. (CR5 – Skill Category 3)
Practice — Comprehension Check	See how much you know about the basic research methods in psychology you've been learning in this lesson.
Discuss — Should Animals Be Used in Research?	Explore the pros and cons of animal research and experimentation in psychology. (CR3 – Skill Category 1)
Quiz — Comprehension Check	Answer multiple-choice questions to assess your understanding of research methods in psychology introduced in this lesson.

**Lesson 3: Basic Statistics** 

Study – Basic Statistics	Learn basic measures of central tendency (averages) and variation (standard deviation).  (CR3 – Skill Category 1, CR4 – Skill Category 2)
Study – The Normal Distribution z-Scores and Percentiles	Learn how the common 'bell curve' is used to determine probabilities and percentiles. (CR3 – Skill Category 1, CR4 – Skill Category 2)
Practice – Descriptive Statistics	Practice what you have learned about descriptive statistics with this PsychSim tutorial (from the textbook publisher). (CR4 – Skill Category 2)
Practice – Basic Statistics	Calculate, organize, and identify basic statistical data. (CR3 – Skill Category 1, CR4 – Skill Category 2)
Practice – Comprehension Check	Answer questions to assess your understanding of basic statistics to prepare for the lesson quiz.
Quiz – Comprehension Check	Answer questions to assess your understanding of basic statistics (for credit).

## Lesson 4: History and Perspectives of Psychology Wrap-Up

Review — History and Perspectives of Psychology	Review the material introduced in this unit to prepare for the test.
Review — Advanced Placement Essay Writing	Learn about how to write Advanced Placement Exam essays.
Test — History and Perspectives of Psychology	Test your understanding of the key concepts covered in this unit. This 50-minute teachergraded test includes both multiple-choice and essay questions.

## Unit 2: Perception and Consciousness (CED Unit 2, CED Unit 3, CED Unit 6)

## **Lesson 1: The Nervous and Endocrine Systems**

Study – Organization of the Nervous System	Learn about the main components of the human nervous system and how they work together.  Explore the somatic nervous system and the different types of neurons. (CR3 – Skill Category 1)
Study – A Tour of the Brain	Learn about the brain, the most complicated system in the known universe. Study the different parts of the brain and their functions. (CR3 – Skill Category 1)
Explore – Hemisphere Specialization	Discover more about brain function and hemisphere specialization. Use the Myers PsychSim tutorials to learn how the hemispheres of the brain function separately and together. (CR3 – Skill

	Category 1, CR5 - Skill Category 3)
	- Skill Category 3)
Study – Methods for Studying the Brain	Read about the amazing tools that have given rise to
	exciting new discoveries about the brain. Learn
	about the brain observation devices EEG, CAT, MRI,
	and PET.
	(CR3 – Skill Category 1)
Practice – Neuron Activity	Label the structures of a neuron. (CR3 - Skill
	Category 1)
Practice – Comprehension Check	Answer questions to assess your understanding of
	the nervous system, the neuron basic brain
	structures and their functions, and how scientists
	study the human
	brain. (CR3 – Skill Category 1)
Study – The Endocrine System	Discover the system of hormones and glands that
	affects emotions and important processes such as
	growth. (CR3 – Skill Category 1)
Explore – Sheep Brain Dissection	Delve into the world of brain structures and
	functions by exploring a sheep's brain at the
	Exploratorium site.
	(CR3 – Skill Category 1, CR5 – Skill Category 3)
Practice – Brain Biology	Create a brain model that displays the various brain
	structures and outlines their various functions. (CR3
	-
	Skill Category 1)
Quiz – Comprehension Check	Answer questions to assess your understanding of
	the
	nervous and endocrine systems.

## **Lesson 2: Genetic Influences**

Study — Genetics and Genetic Diseases	Learn the basics of genes and chromosomes and how they affect behavior. (CR3 – Skill Category 1)
Study — Nature-Nurture and Twin Studies	Discover more how genes and the environment affect our behavior by exploring nature-nurture and twin studies. (CR3 – Skill Category 1)
Discuss — Nature or Nurture?	Explore the topic of nature vs. nurture with your classmates. Use concrete examples to support your view on how environmental or biological factors affect who and what we are. Which do you see as more influential and why? (CR3 – Skill Category 1)
Quiz — Comprehension Check	Answer questions to assess your understanding of genetic influences introduced in this lesson.

## **Lesson 3: Sensation and Perception**

Study – Sensation  Learn how external and internal stimulation such as light, sound waves, taste, smell, and pressure are changed to an electrical-chemical impulse that relays information to the brain for further processing. (CR3 – Skill Category 1)  Study – Theories of Vision and Hearing  Read about the properties of light, the structures and functions of the eye, and how information is processed in the eye and in the brain. Then discover the properties of sound, the structures and functions of the ear, and how sound waves are processed to enable hearing. (CR3 – Skill Category 1)  Explore – Theories of Taste, Smell, and Position  Explore research and details about how we sense tastes and smells. Visit websites that provide information on these senses and the trigeminal sense as well. (CR3 – Skill Category 1, CR5 – Skill
changed to an electrical-chemical impulse that relays information to the brain for further processing. (CR3 – Skill Category 1)  Study – Theories of Vision and Hearing  Read about the properties of light, the structures and functions of the eye, and how information is processed in the eye and in the brain. Then discover the properties of sound, the structures and functions of the ear, and how sound waves are processed to enable hearing. (CR3 – Skill Category 1)  Explore – Theories of Taste, Smell, and Position  Explore research and details about how we sense tastes and smells. Visit websites that provide information on these senses and the trigeminal
information to the brain for further processing. (CR3  Skill Category 1)  Read about the properties of light, the structures and functions of the eye, and how information is processed in the eye and in the brain. Then discover the properties of sound, the structures and functions of the ear, and how sound waves are processed to enable hearing. (CR3 – Skill Category 1)  Explore – Theories of Taste, Smell, and Position  Explore research and details about how we sense tastes and smells. Visit websites that provide information on these senses and the trigeminal
Study – Theories of Vision and Hearing  Read about the properties of light, the structures and functions of the eye, and how information is processed in the eye and in the brain. Then discover the properties of sound, the structures and functions of the ear, and how sound waves are processed to enable hearing. (CR3 – Skill Category 1)  Explore – Theories of Taste, Smell, and Position  Explore research and details about how we sense tastes and smells. Visit websites that provide information on these senses and the trigeminal
Study – Theories of Vision and Hearing  Read about the properties of light, the structures and functions of the eye, and how information is processed in the eye and in the brain. Then discover the properties of sound, the structures and functions of the ear, and how sound waves are processed to enable hearing. (CR3 – Skill Category 1)  Explore – Theories of Taste, Smell, and Position  Explore research and details about how we sense tastes and smells. Visit websites that provide information on these senses and the trigeminal
structures and functions of the eye, and how information is processed in the eye and in the brain. Then discover the properties of sound, the structures and functions of the ear, and how sound waves are processed to enable hearing. (CR3 – Skill Category 1)  Explore – Theories of Taste, Smell, and Position  Explore research and details about how we sense tastes and smells. Visit websites that provide information on these senses and the trigeminal
how information is processed in the eye and in the brain. Then discover the properties of sound, the structures and functions of the ear, and how sound waves are processed to enable hearing. (CR3 – Skill Category 1)  Explore – Theories of Taste, Smell, and Position  Explore research and details about how we sense tastes and smells. Visit websites that provide information on these senses and the trigeminal
in the brain. Then discover the properties of sound, the structures and functions of the ear, and how sound waves are processed to enable hearing. (CR3 – Skill Category 1)  Explore – Theories of Taste, Smell, and Position  Explore research and details about how we sense tastes and smells. Visit websites that provide information on these senses and the trigeminal
sound, the structures and functions of the ear, and how sound waves are processed to enable hearing. (CR3 – Skill Category 1)  Explore – Theories of Taste, Smell, and Position  Explore research and details about how we sense tastes and smells. Visit websites that provide information on these senses and the trigeminal
ear, and how sound waves are processed to enable hearing. (CR3 – Skill Category 1)  Explore – Theories of Taste, Smell, and Position  Explore research and details about how we sense tastes and smells. Visit websites that provide information on these senses and the trigeminal
enable hearing. (CR3 – Skill Category 1)  Explore – Theories of Taste, Smell, and Position  Explore research and details about how we sense tastes and smells. Visit websites that provide information on these senses and the trigeminal
hearing. (CR3 – Skill Category 1)  Explore – Theories of Taste, Smell, and Position  Explore research and details about how we sense tastes and smells. Visit websites that provide information on these senses and the trigeminal
Explore – Theories of Taste, Smell, and Position  Explore research and details about how we sense tastes and smells. Visit websites that provide information on these senses and the trigeminal
Position tastes and smells. Visit websites that provide information on these senses and the trigeminal
information on these senses and the trigeminal
sense as well (CR3 - Skill Category 1 CR5 - Skill
Sense as well. (ens. Skill editegory 1, ens. Skill
Category
3)
Explore – Senses of Touch Position and Use the internet to learn about the kinesthetic (or
Balance proprioceptive) sense, the sense of touch and pain,
and the vestibular sense (or sense of balance). (CR3
- Skill Category 1)
Explore – Fun with Your Senses Now that you have some information about how the
different sensory systems operate, try this "Challenge of the Senses." (CR3 – Skill Category 1)
Study – Perception Learn how the brain organizes and interprets
information from sense organs. Required reading
from Myers text: pages 237-269. (CR3)
Explore – Perception and Optical Illusions Explore the connection between perceptual
expectation and optical illusions. (CR3 – Skill
Category 1)
Discuss – Extrasensory Perception Share your view and provide specific examples to
support your opinion about the existence of ESP.
(CR3
- Skill Category 1)
Explore – Sensation and Perception Jeopardy   Check your understanding of sensation and
perception with an online Jeopardy game.
Quiz – Comprehension Check Answer questions to assess your understanding of
sensation and perception.

### **Lesson 4: Consciousness**

Explore — Theories of Consciousness	Explore different views on what it means to be
	conscious. Includes a review of some basic
	philosophy, including dualism and monism. (CR3 –
	Skill Category 1, CR5 – Skill Category 3)

Appendices page 2216 Pennwood Cyber Charter School

	I
Study – Sleep and Dreaming	Learn about the stages of sleep and some popular
	Theories about dreaming. Includes discussions of
	sleep stages, REM sleep, sleep disorders, dreaming,
	processing theories, and circadian rhythms. (CR3 –
	Skill Category 1, CR4- Skill Category 2)
Explore – Sleep Inventory and Tips for	Take a sleep inventory to assess the quality of your
Sleeping Well	sleep and visit a website for tips on sleeping well.
	(CR3 – Skill Category 1)
Discuss – Sleep	Discuss which sleep disorder you think would be the
	hardest with which to cope. Expand your discussion
	to also talk about the effect of getting too much or
	too little sleep on your waking life. (CR3 – Skill
	Category
	1)
Practice – Stages of Sleep	Write answers to questions about the
	characteristics of the four stages of sleep and
	explain the distinguishing characteristics of REM
	and non-REM
	sleep. (CR3 – Skill Category 1)
Explore – Dream Interpretation	Keep a dream journal for a night then go online to
	examine its possible latent and manifest content.
	(CR3 – Skill Category 1)
Study – Hypnosis	Learn what hypnosis is and how it is used. (CR3 –
	Skill Category 1)
Practice – Comprehension Check	Answer questions to assess your understanding of
	sleep and hypnosis. (CR3 – Skill Category 1)
Study – Psychoactive Drugs	Learn the major classes of drugs (agonists,
	stimulants, depressants, opiates, hallucinogens,
	amphetamines, barbiturates, etc.) and what they do.
	(CR3 – Skill Category 1)
Quiz – Comprehension Check	Answer questions to assess your understanding of
	consciousness.

Lesson 5: Perception and Consciousness Wrap-Up

Review – Perception and Consciousness	Review the material introduced in this unit to prepare for the test.
Test – Perception and Consciousness	Test your understanding of the key concepts covered in this unit. This 50-minute teacher-graded
	test includes both multiple-choice and essay questions.

## <u>Unit 3: Thinking and Feeling (CED Unit 4, CED Unit 5, CED Unit 7)</u>

## **Lesson 1: Classical and Operant Conditioning**

Study — Classical Conditioning	Understand how a stimulus can become paired with a response. (CR3 – Skill Category 1)
Explore — Little Albert and the Classical Conditioning of a Phobia	Explore a classic and controversial experiment about classical conditioning in humans. As you think about how classical conditioning works, try to relate this experiment to your own experience and to today's standards of ethics. (CR3 – Skill Category 1 CR5 – Skill Category 3)
Study — Operant Conditioning	Learn about the basic processes of operant conditioning, including the role of consequences, such as rewards and punishments, and the impact of how these consequences are delivered. (CR3 – Skill Category 1)
Practice — Comprehension Check	Answer questions to assess your understanding of operant conditioning. (CR3 – Skill Category 1)
Discuss — Conditioning	Using your knowledge of classical and operant conditioning, discuss how phobias develop and how they can be treated. (CR3 – Skill Category 1)
Quiz — Comprehension Check	Answer questions to assess your understanding of classical and operant conditioning.

## Lesson 2: Cognitive and Social Approaches to Learning

Study – Cognitive and Social Approaches to Learning	Examine two theories that expanded upon the original notions of classical conditioning and operant conditioning to include the influence of the social environment and mental processes on learning. (CR3
	- Skill Category 1, CR5 - Skill Category 3)
Practice – How Do We Teach Our Children?	Think about how various theories and experiments affect and influence the behavior of children, as well as the ways those theories can help parents raise those children. Also consider the ways certain learning theories can help kids get a better night's sleep. (CR3 – Skill Category 1, CR5 – Skill Category 3)

Quiz – Comprehension Check	Answer questions to assess your understanding of
	cognitive and social approaches to learning.

Appendices page 2219

**Lesson 3: Memory**Required reading from Myers: pages 349-393.

Study — Memory	Learn about basic models and systems of memory and consider some interesting memory related phenomena. (CR3 – Skill Category 1)
Explore — Testing Memory	Try some activities to test your memory and learn some things you can try to improve it. (CR3 – Skill Category 1)
Practice — Forgetting	Identify examples of retroactive and proactive interference, and retrograde and anterograde amnesia.  (CR3 – Skill Category 1)
Explore — Mnemonic Devices	Learn how to use mnemonic devices to improve your recall of content. (CR3 – Skill Category 1)
Discuss — Mnemonic Devices	Use what you have learned in this lesson to explain how mnemonic devices can be used to improve study time and rate of retention. (CR3 – Skill Category 1)
Practice — Memory Practice	Review the "Encoding," "Storage," and "Memory Construction" sections in chapter 9 of your textbook. Then give short answers to some questions on what you've read and learned in this lesson. (CR3 – Skill Category 1)
Quiz — Comprehension Check	Answer questions to assess your understanding of memory as covered in this lesson.

## **Lesson 4: Cognition Problem Solving and Creativity**

Study — Cognition	Learn theories about how we think. Consider the role of the brain, mental images and concepts, reasoning, decision making, and heuristics. (CR3 – Skill Category 1, CR5 – Skill Category 3)
Study — Problem Solving and Creativity	Learn how problem-solving and creativity have been defined and studied. (CR3 – Skill Category 1, CR5 – Skill Category 3)
Practice — Comprehension Check	Answer questions to assess your understanding of cognition problem solving and creativity. (CR3 – Skill Category 1)
Practice — Making Decisions and Forming Judgments	Distinguish between availability and representative heuristics, framing, and schemas as you prepare for the lesson quiz. (CR3 – Skill Category 1)
Quiz — Comprehension Check	Answer questions to assess your understanding of cognition, problem solving, and creativity as presented in this lesson.

Study – Language Development	Learn how people acquire and use language. Includes an overview of language development theories. (CR3 – Skill Category 1)
Explore – Case Study: Genie the Wild Child	Examine a historical case study of a feral child raised in isolation and the effects of this experience on language development. (CR3 – Skill Category 1, CR5 – Skill Category 3)
Discuss – Do Animals Think?	Use concrete examples to support your opinion about whether you believe animals are self-aware and whether they use language. (CR3 – Skill Category 1)
Quiz – Comprehension Check	Answer questions to assess your understanding of language concepts covered in this lesson.

## **Lesson 6: Motivation and Emotions**

Study — Overview of Motivation  Study — Motivation of Hunger and Sex	Study some important theories about motivation including how it can be driven by biological needs. Includes overviews of instinct, drive reduction, incentive, and arousal theories. The hierarchy of needs and the achievement motive are also explored.  (CR3 – Skill Category 1)  Learn about two basic human drives. Explore the
Study — Motivation of Hunger and Sex	deprivation motive and the pleasure principle. (CR3  - Skill Category 1)
Study — Overview of Emotions	Explore some important theories about how emotions are triggered and created. Learn about the James- Langue bodily based theory, the Cannon-Bard thalamic theory, the Schacter and Singer cognitive theory, and the opponent-process theory.
	Required reading from Myers text: pages 513-567. (CR3 – Skill Category 1)
Explore — Facial Expressions	See how subtle differences in facial expression can be powerful communicators of emotion. (CR3 – Skill Category 1)
Discuss — Achievement	Using your knowledge of achievement, discuss what you would do as a coach or boss to motivate players or employees to achieve more. (CR3 – Skill Category 1)
Practice — Theories of Emotion	Student will read a series of scenarios and determine the matching theory of emotion (CR3 – Skill Category 1)
Practice — Comprehension Check	Check your understanding of motivation and emotion before you take the lesson quiz. (CR3 – Skil Category 1)

Appendices page 2221 Pennwood Cyber Charter School

Quiz — Comprehension Check	Answer questions to assess your understanding of
	motivation and emotion as presented in this lesson.

## **Lesson 7: Stress Health and Coping**

Study — Stress Health and Coping	Read theories about how people respond to stress and how to better cope with it. Learn about general adaptation theory, subjective well-being, learned optimism, and positive psychology. (CR3 – Skill Category 1)
Explore — Measuring Your Stress Level	Take an online evaluation of your current stress level. (CR3 – Skill Category 1)
Practice — Comprehension Check	Answer questions to assess your understanding of health, stress, and coping before you tackle the lesson quiz. (CR3 – Skill Category 1)
Quiz — Comprehension Check	Answer questions to assess your understanding of stress, health, and coping as introduced in this lesson.

## **Lesson 8: Thinking and Feeling Wrap-Up**

Review — Thinking and Feeling	Review material to prepare for the test covering the material introduced in this unit.
Test — Thinking and Feeling	Test your understanding of the key concepts covered in this unit. This 50-minute teacher graded test includes multiple-choice and an essay question.

## <u>Unit 4: Development Testing and Individual Differences (CED Unit 5, CED Unit 6, CED Unit 7)</u>

## **Lesson 1: Studying Child Development**

Required reading from Myers: pages 139-164.

Study – Dimensions of Development	Examine some of the significant issues that developmental psychologists consider when studying human development. (CR3 – Skill Category 1)
Study – Developmental Research	Explore the complex problems and ingenious solutions for studying how people change over time. Learn about cross-sectional design, cohort comparison, longitudinal design, and sequential design. (CR3 – Skill Category 1)
Practice – Developmental Timeline	Create a timeline that outlines the key cognitive, social, and moral developmental stages in human development. (CR3 – Skill Category 1)
Quiz – Comprehension Check	Answer questions to assess your understanding of child development as presented in this lesson.

## **Lesson 2: Major Theories of Human Development**

Study — A Survey of Perspectives and Theories of Development	Focus on some of the most important theories about how people develop. Learn about biological and evolutionary perspectives including, Freud's psychosexual theory, Erikson's psychosocial theory, Piaget's cognitive developmental theory, Kohlberg's stages of moral development, behavioral perspectives, Bandura's theory, and Vygotsky's sociocultural theory.  (CR3 – Skill Category 1)
Explore — Parenting Styles	Explore different styles of parenting such as responsiveness and demandingness. (CR3 – Skill Category 1)
Discuss — Attachment	Discuss how attachment and different parenting styles affect human development, as well as the role of the father in the family. (CR3 – Skill Category 1)
Practice — Comprehension Check	Answer questions to assess your understanding of theories of development in preparation for the lesson quiz. (CR3 – Skill Category 1, CR5 – Skill Category 3)
Quiz — Comprehension Check	Answer questions to assess your understanding of the theories of human development as presented in this lesson.

## **Lesson 3: Personality**

Study — Psychodynamic Theories of Development	Learn theories about the role of unconscious conflicts in development. Explore Freud's levels of consciousness, structures of personality, conflict and guilt, and psychosexual stages of development. (CR3 – Skill Category 1)
Study — Psychoanalytic Perspectives on Personality	Dig into what creates personality and learn about various personality theories from the psychoanalytic perspective, including those of Freud, Jung, and Adler.  (CR3 – Skill Category 1)
Practice — The Id, Ego and Superego	Develop a mastery of key terms and ideas about psychoanalytic personality theory. (CR3 – Skill Category 1)
Study — Other Perspectives on Personality	Explore behavioral, social-cognitive, humanistic, and trait approaches to understanding personality. (CR3 – Skill Category 1, CR5 – Skill Category 3)
Practice – Theories of Personality	In a series of short essays, explain how the various theories of personality account for an introverted or extroverted personality. (CR3 – Skill Category 1)

Appendices page 2224 Pennwood Cyber Charter School

Explore – Personality Testing	Take an online personality assessment (a brief version of Myers-Briggs) and think about whether the results are useful to you, whether you agree with them, and how you might design a personality test yourself. (CR3 – Skill Category 1 - CR4 – Skill Category 2)
Practice – Comprehension Check	Answer questions to assess your understanding of personality as covered in this lesson. (CR3 – Skill Category 1)
Discuss Personality	Discuss two theories of personality that you feel best explain the development of your personality. (CR3 – Skill Category 1)
Quiz – Comprehension Check	Answer questions to assess your understanding of personality as presented in this lesson.

## **Lesson 4: Testing and Individual Differences**

Study — How Tests Are Created and Used	Look at how a test is constructed. Then discuss concepts that are related to designing good tests, such as reliability and validity. Finally, examine intelligence testing in particular, focusing on the problems in defining intelligence and on the possibility of cultural and ethnic bias in intelligence testing. (CR3 – Skill Category 1, CR4 – Skill Category 2)
Study — Common Types of Psychometric	Learn about tests for intelligence personality
Tests	and other traits. Examine the definitions,
	characteristics, intended purposes and some of
	the strengths and weaknesses of each type of
	test. (CR3 – Skill Category 1, CR4 – Skill Category 2)
Explore — Howard Gardner: The World of	Discover your multiple intelligences profile. Think
Multiple Intelligences	about your strength and weaknesses, how you
	might improve upon them, and whether the
	results
	surprised you. (CR3 – Skill Category 1, CR4 – Skill
	Category 2)

Appendices page 2225 Pennwood Cyber Charter School

Discuss — Intelligence	Apply what you have learned about intelligence to answer one of these questions using examples to support your opinion. Is there a difference between men and woman? Is intelligence a measure of innate ability or simply hard intellectual work? Is intelligence determined at birth or is it something in our lives that we can improve or change? (CR3 – Skill Category 1)
Practice – Theories of Intelligence	Read descriptions and give the corresponding theories of intelligence. (CR3 – Skill Category 1)
Quiz – Comprehension Check	Answer questions to assess your understanding of personality testing and individual differences as introduced in this lesson.

## Lesson 5: Developmental Testing and Individual Differences Wrap-Up

Review — Development Testing and Individual Differences	Review the material covered in this unit to prepare for the test.
Test — Development Testing and Individual	Test your understanding of the key concepts
Differences	taught in this unit. This 50-minute test is
	teacher graded and includes multiple-choice questions as well as an essay.

## Unit 5: Abnormal Psychology and Social Psychology (CED Unit 1, CED Unit 8, CED Unit 9)

## **Lesson 1: Abnormal Psychology**

Study — Overview of Abnormal	Look at the concept of "abnormal" and see how it
Psychology	has been defined has changed over the years. Then examine how several major theoretical perspectives
	approach "abnormality." Includes an introduction to the DSM-IV. (CR3 – Skill Category 1)
Study — Major Categories of Disorders	Become familiar with the major categories of disorders (such as anxiety, somatoform, dissociative, and affective) as defined by the DSM•IV. See how the disorders vary widely in terms of symptoms as well as prognosis. (CR3 – Skill Category 1)

Discuss — Psychological Disorders	Select a psychological disorder that you find intriguing. Discuss the symptoms and explain why and how you find it interesting. Or take up the issue of insurance coverage for mental disorders. (CR3 – Skill Category 1)
Study — Diagnosing Disorders	Practice diagnosing disorders according to how they're defined in the Diagnostic and Statistical Manual. (CR3 – Skill Category 1)
Explore — The Puzzle of Diagnosis	At the PsychSim website, examine several cases and diagnose the psychological disorder. (CR3 – Skill Category 1)
Practice — Diagnosing Psychological Disorders	Examine a set of five case studies. Then referring to the DSM-IV, give a diagnosis and explanation of the possible psychological disorder based on the symptoms described. (CR3 – Skill Category 1, CR5 – Skill Category 3)
Practice – Comprehension Check	Answer questions to assess your understanding of psychological disorders in preparation for the lesson quiz. (CR3 – Skill Category 1)
Quiz – Comprehension Check	Answer questions to assess your understanding of abnormal psychology as presented in this lesson.

**Lesson 2: Treatments** 

Study — Types of Therapies and Therapists	There exist various theoretical approaches to treatment, and each perspective differs in terms of how problems are targeted. See how each theoretical perspective is unique, and how different facets of each might be combined to form an eclectic treatment model. (CR3 – Skill Category 1)
Explore — Pharmacological Approaches to Treatment	Look at drug classifications and learn how prescription medications are used to treat mental illness. (CR3 - Skill Category 1)
Explore — Rogerian Therapy	Experience a short Rogerian therapy session at the PsychSim Tutorial site. (CR3 – Skill Category 1)
Practice — Therapy and Treatment	Now that you know something about the major psychotherapies and biomedical therapies, apply this information to outline a variety of treatment options for depression, explain the preventative health model, and discuss therapeutic effectiveness. (CR3 – Skill Category 1)
Practice — Comprehension Check	Answer questions to assess your understanding of treatments before taking the lesson quiz. (CR3 – Skill Category 1)
Quiz — Comprehension Check	Answer questions to assess your understanding of treatments and therapies as presented in this lesson.

## **Lesson 3: Attitudes and Social-Cognitive Theories**

Study – Attitudes and Social-Cognitive Theories	Discuss attitude formation and attitude change. Then explore the processes by which we judge our own and others' behavior and examine the common biases that are a part of these processes.  (CR3 – Skill Category 1)
Explore – Examine the Zimbardo Prison Study on the Power of Roles	Examine Zimbardo's historical case study to discover the power of roles and consider whether it explains Iraqi prisoner abuse. (CR3 – Skill Category 1, CR5 – Skill Category 3)
Explore – Famous Studies in Social Psychology	Explore Asch's, Milgram's and Zimbardo's studies about group influence on individual behavior. (CR3 – Skill Category 1, CR5 – Skill Category 3)
Discuss – Social Psychology	Provide a real-life example to support or refute the findings of one of the studies you learned about in the previous two activities. (CR3 – Skill Category 1)

Appendices page 2228 Pennwood Cyber Charter School

Practice – Comprehension Check	Answer questions to assess your understanding of attitudes and social-cognitive theories. (CR3 – Skill Category 1)
Study – Friendliness Friendship and Love	Learn more about what brings people together and prompts them to love and help each other. (CR3 – Skill Category 1)
Quiz – Comprehension Check	Answer questions to assess your understanding of attitudes and Social-Cognitive theories as covered
	in this lesson.

## **Lesson 4: Groups and Intergroup Relations**

Study — Concepts in Groups and Intergroup Relations	Learn about a basic concept in social psychology: the group. Learn important ideas and theories about how groups behave and interact. (CR3 – Skill Category 1)
Study — Contact Theory	Learn how contact between individuals in different groups can increase understanding and cooperation and reduce prejudice, stereotyping, and discrimination. Explore the Robbers Cave Study, the contact hypothesis, and the jigsaw classroom. (CR3 – Skill Category 1, CR5 – Skill Category 3)
Explore — Prisoner Dilemma: A Problem of Cooperation vs. Competition	Explore the effect of cooperation and competition on individual decision-making by playing a computer simulation game that mimics the Prisoner's Dilemma. (CR3 – Skill Category 1)
Explore — Dissonance Theory Persuasion and Consumer Behavior	Take a look at how commercials and print advertisements entice you to purchase their products through promotion of cognitive dissonance. (CR3 – Skill Category 1)
Discuss — Television and Aggression	Discuss whether violence, such as that shown on TV or depicted in video games creates or releases aggression in teens. (CR3 – Skill Category 1)
Practice — Pro-social vs. Anti-social Behavior	Use examples to write short essays that illustrate pro- social and anti-social group behavior. (CR3 – Skill Category 1)
Quiz – Comprehension Check	Answer questions to assess your understanding of groups and intergroup relations as introduced in this lesson.

## Lesson 5: Abnormal Psychology and Social Psychology Wrap-Up

Review — Abnormal Psychology and Social Psychology	Review the material covered in this unit to prepare for the test.
Test — Abnormal Psychology and Social Psychology	Test your understanding of the key concepts introduced in this unit. The 50-minute test is teacher-graded and includes

multiple-choice questions and an essay.

## **Unit 6: Course Review and Exam**

### **Lesson 1: Course Review**

Review — Myers Review Materials	Review the material you studied in this course and
	get a refresher on how to write a good exam essay.

### **Lesson 2: Final Course Exam**

Exam — Final Course Exam	Take the Course Final to assess your understanding of the content from both semesters. This two-hour
	exam
	is teacher-graded and includes multiple-choice
	questions as well as two essays.

## **AP Statistics**



#### **AP Statistics**

#### **Course Overview**

Name	AP Statistics
Description	AP Statistics gives students hands-on experience collecting, analyzing, graphing, and interpreting real-world data. They will learn to effectively design and analyze research studies by reviewing and evaluating real research examples taken from daily life. The next time they hear the results from another poll or study, they will know whether the results are valid. As the art of drawing conclusions from imperfect data and the science of real world uncertainties, statistics plays an important role in many fields. The equivalent of an introductory college-level course, AP Statistics prepares students for the AP Exam and for further study in science, sociology, medicine, engineering, political science, geography, and business.
	The content aligns to the scope and sequence specified by the College Board and to widely used textbooks.
Teacher role	All students enrolled in this course are assigned to a "section" and have a teacher who is charged with ensuring student success and addressing student questions, problems, and concerns. In addition, all students have a "mentor" who is available in their school or home and helps keep the student on track for completing the materials in a timely manner.
Prerequisites	<ul><li>Algebra II or Math Analysis</li><li>Recommended for qualified AP students</li></ul>
Length	Two semesters

Appendices page 2233 Pennwood Cyber Charter School

Materials	The majority of the required instructional material for this course is available to students online and is equivalent to a college-level textbook. These materials were created and owned by our company.
	In addition, either the student or the school must purchase the following:
	Graphing calculator such as the TI-84 Plus, TI-83, or TI-83 Plus
	Mendenhall, W., Beaver, R. J. & Beaver, B. M. (2005). <i>Introduction to Probability and Statistics</i> . 12 <sup>th</sup> Ed. Belmont, CA: Thomson-Brooks/Cole.
	Sternstein, M. (2004). Barron's How to Prepare for the AP Statistics: Advanced Placement Test in Statistics. 3 <sup>rd</sup> Ed. New York: Barron's.

#### **Course Design**

#### **Course Structure**

Unit	Title
Semest	er One
1	Describing Data
2	The Normal Distribution
3	Bivariate Data
4	Planning a Study
5	Probability
Semest	er Two
6	Binomials and Distributions
7	Introduction to Inference
8	tDistribution for Means
9	Inference for Proportions
10	Inference for Tables and Least-Squares
11	Final Preparation for the AP Statistics Exam

#### **Lesson Structure and Instructional Strategies**

The following key should help you understand the different types of activities students engage in during the course:

Activity type	Description
Diagnostic	Pre- or post-test used to help students assess their mastery and understanding of the material introduced in the unit.

Discuss	Students discuss topics in an online bulletin-board style forum. Teachers participate in these discussions as well and students receive credit for their participation.
Exam	Test administered at semester's end covering all material from the course.  The exam is in a format that mimics the AP exam and includes both multiple-choice and free-response sections.
Practice	Students answer questions regarding what they have learned thus far.  There are scored and unscored practices. The scored practices are submitted to the instructor for grading. Answers are to be complete and justified. Unscored practices have solutions provided. Questions often include opportunities to apply new skills to real-world applications and use graphing calculators with statistical capabilities to describe data, determine probabilities, and perform tests [CR2].
Quiz	Computer-administered and automatically graded assessment. Student receives immediate feedback on correct answers and justification.
Review	Review of the material covered in a unit or over a semester. The review is organized by objectives from the unit and includes a summary of the concepts and practice problems with solutions.
Study	Primary instructional online content that teaches new concepts through multimedia and interactivity. Study content often includes opportunities to apply new skills to real-world applications and use graphing calculators with statistical capabilities to describe data, determine probabilities, and perform tests [CR2].
Test	Assessment covering the material introduced in a unit. Tests are in the same format as the AP exam and include both multiple-choice and free-response sections.

#### **Unit and Semester Exams**

At the end of each unit students take a two-part exam. Part 1 of the exam consists of multiple-choice questions, modeled after the multiple-choice section of the AP Statistics Exam. Part 2 of the exam asks students to create short-responses to AP style prompts based on their skill and understanding obtained over the course of the Unit.

At the end of each semester students take a proctored exam modeled after the AP Exam. The first semester exam consists of 25 multiple choice questions and five free-response questions that mimic the AP Statistics AB Exam. The second semester exam consists of 40 multiple-choice questions, and six free-response questions that mimic the AP Statistics Exam.

#### **Course Outline**

#### **Semester One**

Unit 1: Describing Data [College Board (CB) Unit 1, VAR, UNC] Unit 2: The Normal Distribution [CB Unit 1, VAR, UNC]

Unit 3: Bivariate Data [CB Unit 2, VAR, UNC, DAT] Unit 4: Planning a Study [CB Unit 3, VAR, DAT] Unit 5: Probability [CB Unit 4, VAR, UNC]

#### Semester Two

Unit 6: Binomials and Distributions [CB Unit 5, VAR, UNC] Unit 7: Introduction to Inference [CB Unit 7, VAR, UNC, DAT] Unit 8: tDistribution for Means [CB Unit 7, VAR, UNC, DAT] Unit 9: Inference for Proportions [CB Unit 6, VAR, UNC, DAT] Unit 10: Inference for Tables and Least-Squares [CB Units 8 and 9, VAR, UNC, DAT] Unit 11: Final Preparation for the AP Statistics Exam

#### **Curricular Requirements**

The course is structured to address curricular requirements in each semester and in a variety of units, giving students the chance to refine their skills related to the Skills Categories over the progression of the course instead of in a single unit.

Students will address the "big ideas" of Variation and Distribution, Patterns and Uncertainty, and Data- Based Predictions, Decisions, and Conclusions [CR3], use graphing calculators with statistical capabilities to describe data, determine probabilities, and perform tests [CR2], and apply what they are learning to real- world problems throughout many units and lessons in the course.

#### **Curricular Requirement**

- 4: The course provides opportunities for students to develop the course skills related to Skill Category 1: Selecting Statistical Methods, as outlined in the AP Course and Exam Description (CED). Select methods for collecting and/or analyzing data for statistical inference.
- 1.A: Identify the question to be answered or problem to be solved (not assessed).
- 1.B: Identify key and relevant information to answer a question or solve a problem.
- 1.C: Describe an appropriate method for gathering and representing data.
- 1.D: Identify an appropriate inference method for confidence intervals.
- 1.E: Identify an appropriate inference method for significance tests.
- 1.F: Identify null and alternative hypotheses.

Semester 1 (Units 1-5)	Semester 2 (Units 6-10)

Unit 4, Lesson 1 – Methods of Data Collection-Experiments and Studies: Students learn to explain the difference between various methods to collect data such as an observational study and an experiment, anecdotal and available data, a sample, and a census, and they also review various designs to determine if they a flawed and why. At the end of the lesson, students complete an assignment where they design experiments for four different scenarios. [VAR, DAT; 1.A, 1.B, 1.C] Unit 10, Lesson 3 – Inference for the Least-Squares Line: Students learn to compute the least-squares regression line for bivariate data and confidence intervals for the slope of the population regression line, and perform significance tests for the slope of the population regression line. Students also practice with graphing calculator and MINITAB output on

problems associated with

#### **Lesson Objectives**

By the end of this lesson, you should be able to:

- Explain the differences between an *observational study* and an *experiment*.
- Explain the differences between anecdotal and available data, and between a sample and a census.
- Explain the following terms from the vocabulary of experiments: subject, factor, level, placebo, and placebo effect, control and control groups, treatments and treatment groups, bias, matching, matched pairs design, randomization, blocking, replication.
- Name and describe the three major principals of experimental design.
- Given a testable idea, describe a completely randomized design, a randomized matched pairs design, and a randomized block design, and explain which is best and why.

#### **Examples**

#### 4.1.3 Quiz: Data Collection

Students answer ten questions about which methods of data collection are more accurate or which design methods are flawed depending on the given situation.

## 4.1.8 Practice: Choosing the Design of an Experiment

This practice requires students to design experiments for four scenarios. For example, A farm cooperative has asked you to design an experiment that measures the effects of light exposure on the growth of tulips in the Skagit Valley of Washington State. You hypothesize that tulips exposed to more direct light will grow at a faster rate than those exposed to less light. You also wonder whether the effects of light exposure persist when you control for the amount of moisture the plants receive. You want to create a randomized comparative design that considers three factors with the following levels: Light Exposure, Amount of Light Exposure, and Amount of Moisture Exposure.

You have 1,000 seedling plants at 12 different nurseries to use in your experiment. Your experiment should run six months in length. Outline the details of your experiment.

inference for the least-squares regression line [VAR, UNC, DAT; 1.B, 1.D, 1.E] [CR2]

#### **Lesson Objectives**

By the end of this lesson, you should be able to:

- Given a bivariate data set, compute the least- squares regression line.
- Compute confidence intervals for the slope of a population regression line.
- Perform significance tests for the slope of a population regression line.

#### Examples

## 10.3.4 Practice: Graphing Calculator and MINITAB Output for Inference for the Least-Squares Line

Students complete 3 multi-step problems
Problem 1: You want to determine whether
knowing a student's final grade helps to
predict how that student will evaluate their
teacher. You ask 12 students to assign their
math teacher a numeric grade between 0
and 100. You also record each student's final
grade. (data provided)

- A. Construct a scatter plot for these data. Does there seem to be a linear relationship between the two variables?
- B. Use your graphing calculator to construct a least-squares regression line.
- C. Create a scatter plot of the residuals against the explanatory variable. Does the scatter plot support the assumption that the residuals are normally distributed about the regression line? Can you continue to use regression analysis to analyze these data?
- D. What are the null and alternative hypotheses for a two-sided significance test for this regression line?
- E. Using your graphing calculator, find your test statistic and p-value for this two-sided test.
- F. What's the standard error of the slope of this regression line?
- G. Construct a 95% confidence interval for the slope of the regression line.
- H. Interpret the 95% confidence

	interval (.776, 1.2384) for the
In your answer you should comment on a strategy for randomization, identify all the possible	slope of the regression line.
treatment groups, and discuss what might be a	10.3.5 Practice: Inference for the Least-
possible	Squares Line
	Students complete two 7- or 8-step problems

Appendices page 2239 Pennwood Cyber Charter School

response variable. In addition, you should identify a couple confounding variables and discuss a method of controlling for one of these variables.

where they use *t* tests for hypotheses about the slope of a regression line, use their graphing calculators and interpret computer output, construct regression equations, make predictions, determine appropriateness of their predictions, evaluate significance tests, and construct and interpret confidence intervals.

#### **Curricular Requirement**

- 5: The course provides opportunities for students to develop the course skills related to Skill Category 2: Data Analysis, as outlined in the AP Course and Exam Description (CED). Describe patterns, trends, associations, and relationships in data.
- 2.A: Describe data presented numerically or graphically.
- 2.B: Construct numerical or graphical representations of distributions.
- 2.C: Calculate summary statistics, relative positions of points within a distribution, correlation, and predicted response.
- 2.D: Compare distributions or relative positions of points within a distribution.

#### Semester 1 (Units 1-5)

Semester 1 (Units 1-5)

Unit 1, Lesson 2 – Displaying Distributions with Graphs: Students use data provided tables and graphs to answer questions and describe the data, construct graphical representations of distributions of data, and compare distributions of points within a distribution. [VAR, UNC; 2.A, 2.B, 2.D]

#### **Lesson Objectives**

By the end of this lesson, you should be able to:

- Define the terms distribution and variable.
- Present a given set of data graphically in a dot plot or line plot.
- Present a given set of data graphically in a bar chart or pie chart.
- Use frequency tables and relative frequency tables in the construction of histograms and cumulative frequency plots.
   Determine useful class widths for histograms.
- Construct a stem-and-leaf plot and a back-to-back stem-and-leaf plot.
- Identify the *shape* of a distribution from its *dot plot, histogram,* or *stem-and-leaf plot.*Specifically, identify a *uniform distribution, J- shaped distribution, mound-shaped distribution,* or *U-shaped distribution* and identify such features of distributions as *skewness, clusters, gaps,* and *outliers.*

• Use a graphing calculator to draw histograms.

Unit 3 – Bivariate Data: In the first half of this unit, students explore bivariate data as they construct scatter plots and identify instances of positive and negative association in the data (Lesson 1), calculate linear regression, use residuals to discuss the adequacy of a linear regression model, and use their graphing calculator to create residual plots and determine whether a linear regression gives an acceptable model for the relationship between the explanatory and response variable (Lesson 2), calculate the correlation coefficient, make predictions, and understand regression analysis (Lesson 3), and evaluate the impact of influential points and outliers on a data set in a regression setting (Lesson 4) [VAR, UNC, DAT; 2.A, 2.B, 2.C, 2.D] [CR2]

#### **Lesson Objectives**

By the end of these 4 lessons, you should be able to:

- Construct a scatterplot when given a set of paired data
- Identify instances of positive and negative association.
- Distinguish between explanatory and response variables.
- Distinguish between quantitative and categorical data.

Appendices page 2240 Pennwood Cyber Charter School

#### **Examples**

**1.2.2 Practice:** What Can You Tell From Graphs? Students use climate data provided from tables, bar graphs, pie charts, line graphs, and frequency distributions (dot plots), to answer questions and provide justification.

#### 1.2.3 Discuss: Choosing Appropriate Graphs

In a follow-up activity to 1.2.2, students discuss the climate data in a class discussion with the following prompts:

- Describe the seasonal patterns of rainfall and temperature in each of the two cities.
   Which graphs best illustrate these seasonal changes as patterns? Why? In contrast, which graphs best describe the "typical" climate in each city? Why?
- What important climate information is missing from the data? Why don't these graphs tell the whole story about what the climate is really like?
- Using the graphs and tables, tell which city you'd rather live in. Use information from at least two graphs to support your answer.

### 1.2.7 Practice: Introduction to Stem-and-Leaf Plots

In this activity, students research stem-and-leaf plots and back-to-back stem-and-leaf plots. They also practice creating stem and leaf plots from provided data. Students evaluate the shape of the data and how it varies if the values of the stems are changed or combined.

- Calculate the linear regression line from a bivariate data set, interpret the correlation coefficient, and use the line to predict values of the response variable when given values for the explanatory variable.
- Calculate a set of residuals from a linear regression.
- Use residuals to discuss the adequacy of a linear regression model.
- Use your graphing calculator to create residual plots and determine whether a linear regression gives an acceptable model for the relationship between the explanatory and response variables.
- Calculate Pearson's correlation coefficient r for a set of paired data and explain its meaning.
- Explain the relationship between the correlation coefficient and the slope of the regression line.
- Calculate the coefficient of determination (r2) for a set of paired data and explain its meaning.
- Interpret MINITAB output for regression and correlation.
- Distinguish between an outlier and an influential point.
- Identify and describe the influence of outliers and influential points in a regression setting.

#### **Examples**

#### 3.1.2 Practice: Scatterplots and Bivariate

Data Student directions: In this Independent Study you'll create and interpret scatterplots. Although it's easy to create such plots by hand, the process can take a long time. Here are some instructions for creating a scatterplot using the TI-83/TI-84, in case you need a refresher. Let's assume you have the following data for a set for 10 individuals. The x-value represents the amount of change they have in their pocket (in cents), and the y-value represents their age (in years)....

Question 1: A social skills training program was implemented for seven students with

was implemented for seven students with mild handicaps in a study to determine whether the program caused improvement in pre/post measures and behavior ratings. For one such test, these are the pre- and

posttest scores for the seven students: (data provided)

Appendices page 2242 Per

A. Draw a scatterplot relating posttest score to pretest score. (You can create the scatterplot either by hand or by using the TI-83/TI-84.)

B. Describe the relationship between preand posttest scores using the graph in part A. Do you see any trend?

#### 3.2.6 Practice: Linear Regression Lines

Students are given data and instructed to calculate a regression equations, create a scatter plot and plot regression lines with the data, characterize the relationship between the x and y variables, calculate residuals, make predictions, and use data to justify their answers. Graphing calculators are used with this assignment.

#### **Curricular Requirement**

6: The course provides opportunities for students to develop the course skills related to Skill Category 3: Using Probability and Simulation, as outlined in the AP Course and Exam Description (CED). Explore random phenomena.

- 3.A: Determine relative frequencies, proportions, or probabilities using simulation or calculations.
- 3.B: Determine parameters for probability distributions.
- 3.C: Describe probability distributions.
- 3.D: Construct a confidence interval, provided conditions for inference are met.
- 3.E: Calculate a test statistic and find a p-value, provided conditions for inference are met.

#### Semester 1 (Units 1-5)

Unit 5, Lessons 4 and 5 – Probability Distributions and Means and Variances of Random Variables: In these two lessons, students determine probabilities using simulations and calculations, determine parameters for probability distributions, and describe probability distributions [VAR, UNC; 3.A, 3.B, 3.C] [CR2]

#### **Lesson Objectives**

By the end of these 2 lessons, you should be able to:

- Define random variable.
- Distinguish between a discrete random variable and a continuous random variable.
- Construct and interpret a discrete probability distribution and a probability histogram.
- Calculate the expected value (mean), variance, and standard deviation of a discrete random variable.
- Determine the mean and standard deviation

#### Semester 2 (Units 6-10)

Unit 7, Lessons 1 and 2 – Confidence Intervals for Means

and Statistical Significance and P-Value: In these two lessons, students learn about point estimates, margin of error, confidence levels, with statistical significance, critical z-values, statistical confidence and p-values. They construct a confidence interval, generate random samples with their graphing calculator and practice obtaining confidence, and calculate p-values. [VAR, UNC; 3.D, 3.E] [CR2]

#### **Lesson Objectives**

By the end of these 2 lessons, you should be able to:

- Define the term confidence interval, and use the definition to answer questions about confidence intervals.
- Use differing confidence levels to construct confidence intervals for a population mean.
- Identify the sample size needed to

of a discrete random variable that has	create a confidence interval with a
undergone a linear transformation.	given level of
<ul> <li>Given the mean and standard deviation of two random variables X and Y, determine the mean</li> </ul>	confidence and margin of error.

and standard deviation of the random variables X + Y and X - Y.

#### Examples

#### **5.4.3 Practice: Discrete Probability**

**Distributions** Students use a graphing calculator to simulate random behavior of discrete variables, do virtual random experiments (such as die rolls, coin flips, and candy samples), and produce probability histograms. Students also complete an experiment by rolling two normal dice 200 times, then compare theoretical probability with their experimental results. Sample Question: A random variable X has the following probability distribution: (data provided A. What is P(2)?

B. Construct a probability histogram of the distribution.

#### 5.5.4 Practice: Computing Means and

Variances Students complete practice problems to apply their knowledge of how to compute means, standard deviations, and variances for transformed or combined random variables. Sample question: Find the expected value of the number of questions you'd get right by guessing. What are the variance and standard deviation?

- Define the terms P-value and statistical significance, and use the definitions to answer questions about these terms.
- Calculate P-values for different sample outcomes and use them to determine statistical significance.

#### **Examples**

#### **7.1.5 Practice: Confidence Intervals**

Student Directions: Using your graphing calculator, you'll generate random samples and see how many of them give you confidence intervals that contain the population parameter. Step 1: Generate 20 random samples from the same population and take the mean of each sample. Step 2: Generate an 80% confidence interval

Step 2: Generate an 80% confidence interva for each mean.

Step 3: See how many of your confidence intervals contain your population mean.
Step 4: Try this process again with a 90% and 95: confidence interval.

## 7.2.4 Quiz: Working With P-Values and Statistical Significance

Students answer 10 questions to apply the principals of statistical significance and find P-values

Sample question: (*Data and information are provided*.) What's the *p*-value for winning 7 or more out of 100 rounds? Sample question:

(Data and information are provided.) True or False: Using a significance level of .05, there's significant evidence that the population mean is actually lower than 3.4 kilograms.

#### **Curricular Requirement**

- 7: The course provides opportunities for students to develop the course skills related to Inference and Skill Category 4: Statistical Argumentation, as outlined in the AP Course and Exam Description (CED). Develop an explanation or justify a conclusion using evidence from data, definitions, or statistical inference.
- 1.D: Identify an appropriate inference method for confidence intervals.
- 1.E: Identify an appropriate inference method for significance tests.
- 1.F: Identify null and alternative hypotheses.
- 3.D: Construct a confidence interval, provided conditions for inference are met.
- 3.E: Calculate a test statistic and find a p-value, provided conditions for inference are met.
- 4.A: Make an appropriate claim or draw an appropriate conclusion.
- 4.B: Interpret statistical calculations and findings to assign meaning or assess a claim.
- 4.C: Verify that inference procedures apply in a given situation.
- 4.D: Justify a claim based on a confidence interval.
- 4.E: Justify a claim using a decision based on significance tests.

Semester 2 (Units 6-10)

Semester 2 (Units 6-10)

Unit 7, Lesson 3 – Significance and Hypothesis Testing: Means: In this lesson, students learn the four steps of the hypothesis testing procedure and learn about two-sided significance testing and confidence intervals. Students practice statistical argumentation. [UNC, DAT; 1.E, 1.F, 3.E, 4.A, 4.B, 4.C, 4.E] [CR2]

#### **Lesson Objectives**

By the end of this lesson, you should be able to:

- Summarize the steps in, and answer questions about, the hypothesis-testing procedure.
- Define *null hypothesis* and *alternative hypothesis*.
- Perform hypothesis tests for the mean of a population.
- Compare two-sided hypothesis tests and confidence intervals.

#### Example

#### 7.3.4 Practice: Hypothesis Tests for Means

Hypothesis testing is a more formal process for making inferences about a population value based on a test statistic. The procedure for hypothesis testing may be divided into four steps.

- 1. State the null and alternative hypotheses in the context of the problem.
- 2. State the test that you plan to use to test your hypothesis and justify the assumptions (or the conditions) necessary to use that test. You'll see later in this section that if your alternative hypothesis is two sided, you might choose to test the hypothesis with a confidence interval rather than a *t*-test or a *z*-test.
- 3. Compute the test statistic of interest.
- 4. Give a conclusion in the context of the problem. Activity Question 2: A fisheries report states that the mean length of bass in Lake Hypothesistesta is 14 inches, with a standard deviation of 4 inches. You think the population may have changed. You draw a random sample of 35 fish and find that the mean length is 12 inches.

A. To test wither the population mean is different from the 14 inches, what would you use for your null and alternative hypotheses? Be sure to state the hypotheses in the context of the problem.

Unit 9, Lesson 1 – Confidence Intervals and Hypothesis Tests for a Single Population Proportion: In this lesson, students learn about confidence intervals for a single population proportion and identify criteria for using zprocedures, construct a confidence interval using the point estimate, standard error, and the critical z-value and determine the sample size needed for a given margin of error. Students create confidence z-intervals using formulas and a table and with a graphing calculator. Students complete more hypothesis testing and examine testing for a single population proportion with one- and two-tailed significance testing and learn the distinction between standard error in confidence intervals

standard deviation in hypothesis testing. [UNC, DAT; 1.D, 3.D, 4.A, 4.B, 4.C, 4.D] [CR2]

#### **Lesson Objectives**

By the end of this lesson, you should be able to:

- Identify why and when it's proper to use z- procedures when dealing with proportions.
- Construct a confidence interval for a single population proportion using the point estimate, the standard error, and the critical z- value.
- Determine the sample size needed for a given margin of error when constructing a confidence interval for a population proportion.
- Explain the difference between the standard error of a sample proportion for a confidence interval and the standard deviation of a sample proportion for a significance test.
- Conduct a significance test about a single population proportion.

#### Example

## 9.1.5 Practice: Confidence Intervals for a Single Population Proportion

Question 3: A university wants to renovate a building on campus, and wants to know how many of the 20,000 active members of the alumni association would be willing to contribute funds to this project. However, this is the first time alumni donations would

B. What test would you plan to use, how will the test work, and what are the conditions necessary to use the test? Does your situation meet those conditions?	be the sole financial source for such a project, and the university doesn't have an estimate of the proportion who would contribute toward the renovation.

Appendices page 2248

- C. Calculate your test statistic and P-value. Show your work, including the formulas that you use to calculate the statistic.
- D. What's your conclusion, using  $\alpha = 0.5$ ?
- A. If the university wanted to estimate, with a 95% confidence interval and a margin of error of 5%, the proportion of alumni who would be willing to donate to this project, what size sample would they need? B. The university draws a sample of 385 alumni, and 120 of them say they'd be willing to donate to the building renovation. Construct a 95% confidence interval for the proportion of alumni who would donate to the project. C. Based on the sample size from part b, can you consider this situation binomial? Can you use a normal approximation here? D. The university postpones plans for the building renovations until the following year, when researchers take another sample of 385 alumni. This time, 262 alumni say they'd contribute to the project. Construct a 95% confidence interval for the proportion of alumni who would make donations E. Use your graphing calculator to calculate a 99% confidence interval for the proportion of alumni who would donate to the building renovations (use Q = 385 and x = 262). (Show

functions, and inputs on your calculator too.)

# AP United States Government and Politics



#### **AP United States Government and Politics**

Curricular Requirements	Page
CR 1 The teacher and students have access to a college-level U.S. government and politics textbook and news media sources from multiple perspective.	7, 16
CR 2 The course includes the 9 required foundational documents and 15 required Supreme Court cases as described in the course and exam description.	2–3, 8-12, 15
CR 3 The course is structured to incorporate the big ideas and required content outlined in each of the units described in the course and exam description.	3–4, 6-15
CR 4 The course provides opportunities for students to develop the skills in the disciplinary practices and make connections to the big ideas: Practice 1: Concept Application	11, 15
CR 5 The course provides opportunities for students to develop the skills in the disciplinary practices and make connections to the big ideas: Disciplinary Practice 2: SCOTUS Application.	15
CR 6 The course provides opportunities for students to develop the skills in the disciplinary practices and make connections to the big ideas: Disciplinary Practice 3: Data Analysis.	13-14
CR 7 The course provides opportunities for students to develop the skills in the disciplinary practices and make connections to the big ideas: Disciplinary Practice 4: Source Analysis: Read, analyze, and interpret foundational documents and other text-based sources and make connections to at least one big idea.	6-14

Appendices page 2251 Pennwood Cyber Charter School

CR 8 The course provides opportunities for students to develop the skills in the disciplinary practices and make connections to the big ideas: Disciplinary Practice 4: Source Analysis: Read, analyze, and interpret foundational documents and other text-based and visual sources.	13
Curricular Requirements	Page
CR 9 The course provides opportunities for students to develop the skills in the disciplinary practices and make connections to the big ideas: Disciplinary Practice 5: Argumentation.	9, 11, 14
CR 10 Students are provided with an opportunity to engage in a political science research or applied civics project tied to the course and exam description that culminates in a presentation of findings.	15

#### **Course Summary**

The AP® United States Government and Politics course will provide high school students with college-level instruction in using disciplinary practices to examine key ideas, institutions, and behaviors in American government. They will look critically at the fundamental beliefs and philosophies that shaped American government and how those ideas have been interpreted and applied throughout history. Students will develop a deep understanding of the U.S. Constitution and the American political system—both its formal and informal processes and procedures. Students will also examine specific governmental institutions, policies, interactions, and behaviors within the political system. Through their study of each of these areas, students will hone their reasoning skills by developing evidence-based arguments, interpreting various types of data, and analyzing key documents, including foundational documents and Supreme Court decisions.

The course is organized around five big ideas, each focused on a different aspect of U.S. government and politics. Students must master the major political concepts associated with each idea and grasp the significant foundational documents and Supreme Court decisions required by the standards. This course will effectively prepare students for the AP exam by practicing the skills necessary to draw reasoned conclusions in both multiple-choice and free-response formats.

All nine required foundational documents are incorporated into the course. Students will also read additional foundational documents based on state and local requirements and/or impact on U.S. constitutional democracy. [CR 2]

The following 15 required Supreme Court cases are incorporated within the course in order of appearance. [CR 2]

- McCulloch v. Maryland (1819)
- United States v. Lopez (1995)
- Baker v. Carr (1961)
- Shaw v. Reno (1993)
- Marbury v. Madison (1803)
- Engel v. Vitale (1962)
- Wisconsin v. Yoder (1972)
- New York Times Co. v. United States (1971)
- Tinker v. Des Moines Independent Community School District (1969)
- Schenck v. United States (1919)
- Gideon v. Wainwright (1963)
- Roe v. Wade (1963)
- McDonald v. Chicago (2010)
- Brown v. Board of Education (1954)
- Citizens United v. Federal Election Commission (2010)

After reading about each court case, usually with an excerpt from the majority opinion, students will answer analysis questions about it. For example, after reading about *McCullough v. Maryland*, students write several sentences in response to the question: How did *McCullough v. Maryland* expand the power of the federal government beyond the powers specifically enumerated in the Constitution?

#### **Course Units**

- Unit 1: Course Overview
- Unit 2: Foundations of Democracy (big ideas: Constitutionalism, Liberty and Order, Methods of Political Analysis)
- Unit 3: Interaction Among Branches (big ideas: Competing Policy-Making Interests, Methods of Political Analysis)
- Unit 4: Civil Liberties and Rights (big ideas: Liberty and Order, Methods of Political Analysis)
- Unit 5: Mid-Semester Check

- Unit 6: American Political Culture and Beliefs (big ideas: Civic Participation in Representative Democracy, Methods of Political Analysis)
- Unit 7: Political Participation (big ideas: Civic Participation in Representative Democracy, Methods of Political Analysis)
- Unit 8: Review and Full-Length Practice Exam Unit
- Unit 9: Semester Project: From Bill to Law
- Unit 10: Semester Exam

#### **Resource Requirements**

Edwards III, George C., Wattenberg, Martin P., and William G. Howell. *Government in America: People, Politics, and Policy*. 17th ed., Pearson Higher Education, 2018. [CR 1]

#### **Writing Assignments**

In each lesson, students respond to questions about their textbook readings and other resources in a notebook. Students also complete longer portfolio writing that requires them to synthesize lesson content from across lessons and resources to develop evidence-based argumentative essays.

#### **Assessments**

Throughout the course, a variety of formative and summative assessments are used to assess student learning and prepare students for the expectations of the AP United States Government and Politics exam. Students are provided with ample opportunity for skill practice, engagement in meaningful discourse with their peers, and application of their understanding via tasks that are representative of real- world scenarios. Summative assessment types lend themselves to a deeper level of rigor and include portfolios and discussions. Formative assessments are designed to be auto-graded to give students and teachers instant feedback for targeted instruction.

Most lessons contain a quick check assessment that covers the objectives in the lesson, and most units have at least one cumulative quiz that also assesses lesson objectives. Each instructional unit culminates in an online practice to help students review unit concepts and skills, followed by a unit test that consists of multiple choice and short answer and/or essay questions. To aid students in retaining content throughout the course of a semester, a mid-semester check unit appears in the semester, featuring a low-risk practice assessment covering the objectives learned up to that point during the semester.

A graded full-length practice exam in the style of the AP United States Government and Politics exam is given near the end of the semester. The semester ends with a semester exam.

Most units feature a discussion or portfolio that promotes critical thinking by expanding on topics students have learned. The semester ends with a semester project and a semester exam. Graded assessments and participation all count toward the student's final grade.

#### **Course Outline**

#### Semester A

#### **Unit 1: Course Overview**

In this unit, students will do the following:

- Acquaint themselves with the goals and expectations of the course.
- Ensure they have the required materials for the course.
- Learn about the types of activities that will appear in the course.

#### **Unit 2: Foundations of Democracy**

In this unit, students will do the following:

- Explain how the ideas that form the basis of limited government in the United States are reflected in the Declaration of Independence and U.S. Constitution.
- Explain the models of representative democracy and how they are visible in political institutions, politics, events, and debates.
- Analyze the factors that contributed to the development of the U.S. Constitution, including the
  weaknesses of the Articles of Confederation, the role of compromise during the Constitutional
  Convention, and the ratification debate.
- Assess how the Constitution protects the freedom and will of the people of the United States through separation of powers and checks and balances.
- Examine the different interpretations of how power should be balanced between the national and state governments.

#### Sample activities in this unit:

• Students will analyze the separation of powers through checks and balances and apply it to the competitive policy-making process. First, students will read Federalist, no. 51, identify the argument used for separation of powers, and summarize this argument in their own words. Then, students will connect this argument to Constitution and policy-making by writing a paragraph in response to the question: Is the policymaking gridlock built into the Constitution a blessing or a curse? [Practice 4: Source Analysis; CR 3 (Big Idea: Competing Policy- Making Interests; Enduring Understanding: PMI-1) and CR 7)

- Students will analyze the balance between government power and individual rights. First, students will examine the Anti-Federalist arguments in Brutus I and write a paragraph explaining why the consolidation of power is dangerous to individual liberty. Then, students will read about the modern debate on the scope of the federal government's power and write a paragraph explaining how Anti-Federalists would react to the federal government's scope today and how this modern debate reflects the arguments during ratification. [Practice 5: Argumentation; CR 3 (Big Idea: Liberty and Order; Enduring Understanding: LOR-1) and CR 7]
- Students will read two articles on state compliance with federal law. In a short essay, students
  will compare and contrast the arguments about federalism in each situation and then draw a
  conclusion about federalism and the scope of government power. [CR 1 (Big Idea:
  Constitutionalism; Enduring Understanding: CON-2)]
- Students will read the Washington Post article, "Congress's latest target for reversal: An
  Obama attempt to modernize how we manage Public Lands." Then students will write
  responses to comprehension questions about the arguments the article presents in favor of
  and in opposition to the Obama Administration's public land management policies. [Practice
  4: Source Analysis; CR1 (Big Idea: Civic Participation in Representative Democracy; Methods
  of Political Analysis: PRD 5.12, PRD 5.13]
- Students will read the EducationWeek articles, "Obama Uses Funding, Executive Muscle to
  Make Often-Divisive Agenda a Reality," and "Obama's Complex Legacy on K-12: Bold
  Achievements, Fierce Blowback." Then
  student's will write responses to comprehension questions that compare how those policies
  relied on Federalism, how they faced opposition by state's rights advocates, and how they
  shifted in from the beginning to the end of the Administration. [Practice 4: Source Analysis; CR1
  (Big Idea: Civic Participation in Representative Democracy; Methods of Political Analysis: PRD
  5.12, PRD 5.13]
- Students will read the articles, "Scalia's Blow for Federalism" from the National Review and
  "Republicans and Democrats Flip Usual Positions Over 'Sanctuary Cities'" from The Atlantic.
  Then students will refer to those sources to write an analysis of how how United States v. Lopez
  relates to the Commerce Clause of the Constitution. [Practice 4: Source Analysis; CR1 (Big Idea:
  Civic Participation in Representative Democracy; Methods of Political Analysis: PRD 5.12, PRD
  5.13]

- Students will analyze and explain how *United States v. Lopez* relates to commerce clause and connect it to a contemporary Supreme Court case addressing a similar issue. Students will conduct research to find a recent case such as *Printz v. United States* in which *United States v. Lopez*, either the majority or dissenting opinion, was used as a precedent and present an argument for whether the current standing of the Court should be overturned. [Practice 2: SCOTUS Application; CR 2 and CR 7]
- Students will evaluate the big idea of constitutionalism. In a discussion, students will respond to at least two prompts, such as the following:
  - How does the Constitution promote compromise between factions, parties, and interest groups?
  - What is one debate, negotiation, compromise, or tension from the Constitutional Convention that is still important in politics and policymaking today, and why?
  - Does the government of the United States today most resemble a participatory democracy, a plural democracy, or an elite democracy? [CR 3 (Big Idea: Constitutionalism; Enduring Understanding: CON-1)]
- Students will visit the websites of their congressional representative and at least one senator from their state. As they review each site, students will look carefully at the issues and policymaking priorities that are most prominent on each lawmaker's site and consider these questions:
  - How much emphasis is placed on local or regional issues that might impact individual constituents?
  - How much emphasis is placed on issues related to larger, national groups and debates?
  - How much emphasis is placed on the character traits of the lawmaker and his or her fitness for independent decision making?

Based on these descriptions, students will write several paragraphs to explain what similarities and differences they see in how the lawmakers represent themselves and their policy priorities. In their written response, students will also explain how these similarities and differences reflect the differences between the House and the Senate as well as how they reflect different models of representational democracy. [Practice 1: Concept Application; CR 3 (Big Idea: Competing Policy-Making Interests; Enduring Understanding: PMI-1) and CR 3]

Required reading: *Government in America*, Chapter 1, pp. 9–12; Chapter 2, pp. 26–40, 45–53; Chapter 3, pp. 61–82; and Chapter 11, pp. 310–319, 347–348.

Required foundational documents: Federalists no. 10 and 51; Brutus I; Declaration of Independence; Articles of Confederation; U.S. Constitution [CR 2]

Required Supreme Court cases: Students will read excerpts from the majority opinions in *McCulloch v. Maryland* (1819) and *United States v. Lopez* (1995) and answer analysis questions about each court case. [CR 2]

#### **Unit 3: Interaction Among Branches**

In this unit, students will do the following:

- Analyze the structure and powers of the legislative branch and the law- making process.
- Analyze how each branch of government provides oversight and limits the powers of other branches.
- Assess how the president can implement a policy agenda, the role of communication technology, evaluate news media sources from multiple perspectives, analyze potential conflicts with Congress, and the justifications for using formal and informal presidential powers.
- Evaluate the principle of judicial review and the political discussion about the Supreme Court's power.
- Explain the discretionary and rule-making authority of the federal bureaucracy to carry out the government's responsibilities.

#### Sample activities in this unit:

- Students will examine the power of Congress and its interaction with the president. In a series of activities, students will examine the power Congress to declare war. First, they will read the article "Power to Declare War" from Congress and write a paragraph to describe how the president can enter into military conflicts without Congress and how the War Resolution should limit this. Then, they will conduct research about one of the conflicts they explored in the previous article and write several paragraphs about the interactions between the legislative and executive branches. [CR 3 (Big Idea: Constitutionalism; Enduring Understanding: CON-3) and CR 7]
- Students will analyze the powers of the executive branch. In a portfolio, students will develop an argument in the form of an essay in which they take

a position on the expansion of powers and scope of the executive branch over time, and its impact on American politics and government. [CR 3 (Big Idea: Constitutionalism; Enduring Understanding: CON-4), and CR 9]

- Students will analyze the design of the judicial branch and how its power was increased through
  judicial review. Students will read an excerpt from
- Marbury v. Madison and write paragraph-long responses to a series of questions about how
  judicial power expanded since the Constitution, how the judicial branch is isolated from some of
  the democratic processes, and in what ways the Supreme Court can limit the power of Congress
  and the executive branch. [CR 3 (Big Idea: Constitutionalism; Enduring Understanding: CON-5)]
- Students will analyze the relationship between each branch of government and the federal
  bureaucracy in creating and enforcing policies. After studying this unit, students will complete a
  chart showing how the Constitution established each branch and how each branch is related to
  the specific parts of the federal bureaucracy. [CR 3 (Big Idea: Competing Policy-Making
  Interests; Enduring Understanding: PMI-2)]

Required reading: *Government in America*, Chapter 2, pp. 33–34 and 40–44; Chapter 11, pp. 319–322 and 329–333; Chapter 12, pp. 356–357 and 369; Chapter 13, pp. 373–374 and 400–401; Chapter 14, pp. 415–416 and 433; and Chapter 15, pp. 448–455 and 468–469.

Required foundational documents: Federalist, no. 70; Federalist, no. 78; and U.S. Constitution (Articles I and V). [CR 7]

Required Supreme Court cases: Students will read excerpts from the majority opinions in *Baker v. Carr* (1961), *Shaw v. Reno* (1993), and *Marbury v.* 

Madison (1803), and answer analysis questions about each court case. [CR 2]

#### **Unit 4: Civil Liberties and Rights**

In this unit, students will do the following:

- Explain the rights protected in the Bill of Rights and how the Constitution protects civil liberties.
- Examine how interpretations of the protections within the Bill of Rights have changed over time.
- Analyze the doctrine of selective incorporation and how the protections in constitutional amendments have been applied to the states.
- Assess how the interpretation and application of the due process clause in

- the Fourteenth Amendment has limited states from infringing upon individual rights.
- Assess how the equal protection clause in the Fourteenth Amendment has influenced policy changes in response to social movements, including the restriction and protection of minority rights.

#### Sample activities in this unit:

- Students will analyze how the courts interpret the Constitution, specifically the Bill of Rights, and how they have interpreted due process rights. Students will synthesize information presented in the course with excerpts from the Bill of Rights and related Supreme Court cases, specifically *Gideon v. Wainwright* and *Roe v. Wade*, and write several paragraphs in response to prompts about due process and the right to privacy. [CR 2 and CR 3 (Big Idea: Liberty and Order; Enduring Understanding: LOR-3)]
- Students will read the decision of *Tinker v. Des Moines*. In several paragraphs, students will identify the key findings and describe how those would apply to a high school football player refusing to stand for the national anthem in support of Black Lives Matter versus his coach's desire to suspend him. [CR 3 (Big Idea: Liberty and Order; Enduring Understanding: LOR-2) and CR 4]
- Students will examine the influence of citizen-state interactions on interpreting the
  Constitution. Students will write a short essay where they evaluate how the long history of
  how the women's movement encouraged a reinterpretation of the rights guaranteed by the
  Constitution. Students are encouraged to use language from applicable Supreme Court cases
  as supporting evidence. [Practice 2: SCOTUS Application; CR 3 (Big Idea: Civic Participation in a
  Representative Democracy; Enduring Understanding:
  PRD-1)]
- Students will connect the selective incorporation of protections in the Bill of Rights for the rights of the accused (LOR-3) to how U.S. political culture influences the balance between individual liberty and efforts to promote stability and order (PMI-4) by researching the legal aspects of the War on Terror. In response to a series of prompts, students will write several paragraphs about the legality or illegality of actions by the United States government in the wake of 9/11, particularly the Supreme Court's response to holding and trying suspected terrorists at Guantanamo Bay. [CR 3 (Big Idea: Liberty and Order; Enduring Understanding: LOR-2) and CR 7]
- Students will write a short essay where they distinguish between the rationale in *Plessy* versus the rationale in *Brown*. They will analyze this

distinction and develop some ideas about why the two decisions reached different conclusions. Then, students will read "Letter from Birmingham Jail" and write a paragraph to describe the author's purpose and how the letter reflects the ideas embodied in the equal protection clause of the Fourteenth Amendment. [CR 3 (Big Idea: Civic Participation in a Representative Democracy; Enduring Understanding: PRD-1), CR 7 and CR 9]

- Student will analyze how the government has responded to social movements through the Civil Rights Act of 1964, Title IX, and the Voting Rights Act of 1965. After reading about these policies, students will write several paragraphs to explain the relationship between the advancement of civil rights and democratic principles as well as the way democratic principles can also lead to violations of civil rights. [CR 3 (Big Idea: Competing Policy- Making Interests: PMI-3)]
- Students will write paragraph responses to several prompts to demonstrate what they learned about Affirmative Action, including how and why this policy was developed, and how it works in American life today. [CR 3 (Big Idea: Constitutionalism; Enduring Understanding: CON-6)]

Required reading: *Government in America*, Chapter 4, pp. 86–87, 89–103, and 109–124; and Chapter 5, pp. 131–151 and 155–159

Required foundational documents: Letter from Birmingham Jail (Martin Luther King, Jr.); and U.S. Constitution (Bill of Rights) [CR 7]

Required Supreme Court cases: Students will read excerpts from the majority opinions in Engel v. Vitale (1962); Wisconsin v. Yoder (1972); New York Times Co. v. United States (1971); Tinker v. Des Moines Independent Community School District (1969); Schenck v. United States (1919); Gideon v. Wainwright (1963); Roe v. Wade (1963); McDonald v. Chicago (2010); and Brown v. Board of Education (1954) and answer analysis questions about each court case. [CR 2]

#### **Unit 5: Mid-Semester Check**

In this unit, students will do the following:

 Demonstrate knowledge that they have learned from the beginning of the course by completing a graded mid-semester check in the style of the AP United States Government and Politics exam.

#### Unit 6: American Political Culture and Beliefs

In this unit, students will do the following:

- Examine the cultural factors that shape how individuals and communities interpret core
  political values.
- Analyze how differing interpretations of key political values impact the relationships among citizens and between citizens and the government.
- Assess the elements of a scientific poll as well as the quality and credibility of public opinion polling data.
- Examine varying political ideologies and their views toward the government's role in market regulation and social issues.
- Evaluate how public policies reflect the values, attitudes, and beliefs of different political ideologies.

#### Sample activities in this unit:

- Students will analyze campaign ads from the most recent (or upcoming) elections. In several paragraphs, students will explain what beliefs about the American national identity these ads reflect. Students will also determine which demographics they think the ads target and why. Then, students will analyze a graph about changing demographics in the United States and write a paragraph to explain how demographics influence the development of political beliefs.
   [Practice 3: Data Analysis; CR 3 (Big Idea: Competing Policy- Making Interests; Enduring Understanding: PMI-4), CR 7, and CR 8]
- Students will examine a graph on polarization in Congress and provide a written explanation of several reasons why Congress is becoming increasingly divided by party ideology. Then, students will examine a table from a U.S. Census Bureau report and provide written responses to several prompts about demographics and voting patterns. [Practice 3: Data Analysis; CR 3 (Big Idea: Methods of Political Analysis; Enduring Understanding: MPA-1), and CR 6]
- Students will watch a video on public opinion of the war in Iraq and write a paragraph to explain the impact of public opinion data on this policy debate. Then, students will analyze a political cartoon on economic policy and provide a written response in which they take a position on whether the level of public information is so low that it poses a threat to democracy. Finally, students will analyze a graph of voter turnout by age (source: 2014 U.S. Census Bureau data) and write a paragraph about the relationship between demographics and what Americans know about public policy. [Practice 4: Source Analysis; CR 3 (Big Idea: Methods of Political Analysis; Enduring Understanding: MPA-2), CR 6, and CR 8]

• Students will explore the proper role of government in the marketplace and addressing social issues. In a portfolio, students will pose an evidence-based argument explaining one of the major differences between the liberal and conservative political ideologies in the United States and offer views on how active a role the government should take. They should express a thesis statement about the extent to which the government should take an active role in the marketplace and society. They should also describe each ideology's views on the proper role of government in market regulation and addressing social issues. Students' arguments should be supported with evidence from historical events and foundational documents. [CR 3 (Big Idea: Competing Policy-Making Interests; Enduring Understanding: PMI-4), CR 7 and CR 9]

Required reading: *Government in America*, Chapter 1, pp. 16–19; Chapter 6, pp. 164–169, 171–178, 180–183, and 188–189; Chapter 7, pp. 193–215; Chapter 8, pp. 219–225 and 230–237; Chapter 11, pp. 332–335; and Chapter 16, pp. 481–501

#### **Unit 7: Political Participation**

In this unit, students will do the following:

- Analyze the linkage institutions that facilitate citizens' participation in government, including the media, political parties, interest groups, and social movements.
- Analyze the factors that facilitate and deter voter participation in elections.
- Analyze the election process, including campaign organizations, finance, and strategies.
- Evaluate the positive and negative impacts of modern campaigns on the election process.

#### Sample activities in this unit:

• Students will consider the factors that influence political participation, including the media, structural barriers, and demographics. First, students will write a short essay from the perspective of an American citizen who chooses not to vote. If time allows, students will write a second essay refuting the points made in the first essay. Then, students will examine a table showing voter turnout by various groups (source: data from the 2012 and 2014 U.S. Census Bureau surveys) and explain how demographics influence political participation. [CR 3 [Big Ideas: Methods of Political Analysis and Civic Participation in a Representative Democracy; Enduring Understandings: MPA-3 and PRD-3] and CR 6]

- Students will examine how linkage institutions provide opportunities for participation and influence how people relate to government and policy- makers. Students will write a paragraph to explain how political parties, interest groups, elections, and the media function as linkage institutions. Then, students will write another paragraph to present other organizations that could serve as linkage institutions and what would have to happen for them to be effective as such. [CR 3 (Big Idea: Competing Policy-Making Interests; Enduring Understanding: PMI-5]
- Students will examine federal policies on campaigning and donation rules. First, students will assess how President Obama raised campaign money and write a paragraph about whether it was ethical, considering the debates about campaign finance. Then, students will write several paragraphs to summarize the funds that candidates can receive from various sources and take a position on the ideal campaign finance laws, justifying their position with evidence. [CR 3 (Big Idea: Civic Participation in a Representative Democracy; Enduring Understanding: PRD-2)]
- Students will participate in a discussion about the winner-take-all system under the Electoral College versus the popular vote for electing the president. In this discussion, students will articulate an opinion about whether the Electoral College is the best process for national elections. [CR 3 (Big Idea: Civic Participation in a Representative Democracy; Enduring Understanding: PRD-2]

Required reading: *Government in America*, Chapter 1, pp. 9–12; Chapter 2, pp. 26–40 and 45–53; Chapter 6, pp. 173 and 182–188; Chapter 7, pp. 201–212; Chapter 8, pp. 220, and 223–225; Chapter 9, pp. 244, 253–260, 263–274, and 276–279; and Chapter 10, pp. 298–299.

Supreme Court Cases: Students will read an excerpt from the majority opinion in *Citizens United v. Federal Election Commission* (2010) and answer analysis questions about this court case. [CR 2]

#### Unit 8: Review and Full-Length Practice Exam

In this unit, students will do the following:

- Review the entire course, using the results of the mid-semester check and unit tests to focus this review.
- Complete a full-length practice exam in the style of the AP United States Government and Politics exam, over the course of three days.

#### **Unit 9: Semester Project**

In the project unit, students will select a recently passed law addressing an issue of interest to them. They will map the law-making process from its creation as a bill to its passage by Congress, including any obstacles along the way. This project will culminate in a presentation of the students' finding. [CR 1, CR 4, CR 5, and CR 10]

#### **Unit 10: Semester Exam**

In this unit, students will do the following:

- Review all topics covered this semester.
- Demonstrate knowledge by completing a graded semester exam written in the style of the AP United States Government and Politics exam.

## **AP United States History**



#### **AP United States History Syllabus**

Curricular Requirements	
curricular requirements	See pages:
CR1 The teacher and students have access to a college-level U.S. history textbook, diverse primary sources, and multiple secondary sources written by historians or scholars interpreting the past.	4, 7–10, 12–14, 17– 19, 21–23
CR2 The course provides opportunities to develop student understanding of the required content outlined in each of the units described in the course and exam description.	4, 7–14, 17–20, 22, 23
CR3 The course provides opportunities to develop student understanding of the course themes.	4, 7–14, 17–20, 22, 23
CR4 The course provides opportunities for students to develop the Historical Thinking Skill 1: Developments and Processes.	6-14, 16-24
CR5 The course provides opportunities for students to develop the Historical Thinking Skill 2: Sourcing and Situation.	7, 10
CR6 The course provides opportunities for students to develop the Historical Thinking Skill 3: Claims and Evidence in Sources.	7, 10, 14
CR7 The course provides opportunities for students to develop the Historical Thinking Skill 4: Contextualization.	9, 11, 16, 18
CR8 The course provides opportunities for students to develop the Historical Thinking Skill 5: Making connections through the application of the three historical reasoning processes (comparison, causation, continuity and change)	8, 9, 12-14, 18, 20-23
CR9 The course provides opportunities for students to develop the Historical Thinking Skill 6: Argumentation	9, 22

Theme Page Location(s)
------------------------

Appendices page 2268 Pennwood Cyber Charter School

Theme 1: American and National Identity (NAT)	9–11, 16, 18–20, 22
Theme 2: Politics and Power (POL)	9, 12–14, 17–20, 22
Theme 3: Work, Exchange, and Technology (WXT)	7–8, 11, 16, 19, 23
Theme 4: American and Regional Culture (ARC)	7, 9, 11, 13, 16
Theme 5: Migration and Settlement (MIG)	11, 12, 19
Theme 6: Geography and the Environment (GEO)	6, 12, 23
Theme 7: America and the World (WOR)	7, 8, 18, 20, 21
Theme 8: Social Structures (SOC)	6, 11, 13, 16

# **Course Summary**

The AP® U.S. History course will provide high school students with college-level instruction in using disciplinary practices and historical reasoning to examine the history of the United States from precolonial time to the present. They will look critically at how the American identity has developed over the course of American history and how it has been informed by the changing nature of American culture and societal structures and norms. Students will recognize and interpret patterns of migration and settlement—both to and within the United States—and how those patterns impacted and were impacted by aspects of regional geography and environment. Students will also consider political and economic patterns and relationships in American history, both within the nation and with the global community at large.

Through their study of each of these areas, students will hone their reasoning skills to contextualize patterns and events, identify causation and continuity, and analyze change over time. The course is presented chronologically with content divided into nine time periods. In each unit, activities address the seven themes. This course will effectively prepare students for the AP exam by providing practice in the skills necessary to analyze primary and secondary sources, construct evidence-based arguments, and draw reasoned conclusions in both multiple choice and constructed response formats.

# Course Units [CR 2, CR 3]

#### Semester A

- Unit 1: Course Overview
- Unit 2: Europe, the Americas, and Africa, Before 1492
- Unit 3: Settling North America, 1607– 1754
- Unit 4: The American Revolution, 1754– 1783
- Unit 5: Building a Nation, 1783–1800
- Unit 6: Mid-Semester Check
- Unit 7: Manifest Destiny, 1801–1853
- Unit 8: Jacksonian Democracy, 1824–1854
- Unit 9: The Civil War, 1850–1877
- Unit 10: Semester Exam

#### Semester B

- Unit 1: Course Overview
- Unit 2: The Gilded Age, 1866–1914
- Unit 3: The Progressive Movement, 1879– 1919
- Unit 4: World War I, 1914–1918
- Unit 5: The Great Depression, 1919–1939
- Unit 6: Mid-Semester Check
- Unit 7: World War II, 1939–1945
- Unit 8: Prosperity and Change, 1945–1989
- Unit 9: A New World Order, 1989

  —The Present
- Unit 10: Review and Full-Length Practice Exam
- Unit 11: Semester Project
- Unit 12: Semester Exam

#### **Resource Requirements**

Fraser, James W. By the People: A History of the United States. AP ed., Pearson Education, Inc., 2018. [CR 1]

#### **Writing Assignments**

In each lesson, students respond to questions about their textbook readings and other resources in a notebook. Students also complete longer portfolio writing assignments that require them to synthesize lesson content from across lessons and resources to analyze certain exam topics indepth.

#### **Assessments**

Throughout the course, a variety of formative and summative assessments are used to assess student learning and prepare students for the expectations of the AP United States History exam. Students are provided with ample opportunity for skill practice, engagement in meaningful discourse with their peers, and application of their understanding via tasks that are representative of real-world scenarios. Summative assessment types lend themselves to a deeper level of rigor and include portfolios and discussions. Formative assessments are designed to be auto-graded to give students and teachers instant feedback for targeted instruction.

Most lessons contain a quick check assessment that covers the objectives in the lesson, and most units have at least one cumulative quiz that also assesses lesson objectives. Each instructional unit culminates in an online practice to help students review unit concepts and skills, followed by a unit test that consists of multiple choice and short answer and/or essay questions. To aid students in retaining content throughout the course of a semester, a mid-semester check unit appears in the middle of each semester, featuring a low-risk practice assessment covering the objectives learned up to that point during the semester.

A graded full-length practice exam in the style of the AP United States History exam is given at the end of Semester B. Each semester ends with a semester exam.

Most units feature a discussion or portfolio that promotes critical thinking by expanding on topics students have learned. Each semester ends with a semester project and a semester exam. Graded assessments and participation all count toward the student's final grade.

#### **Course Outline**

#### Semester A

#### **Unit 1: Course Overview**

In this unit, students will do the following:

- Acquaint themselves with the goals and expectations of the course.
- Ensure they have the required materials for the course.
- Learn about the types of activities that will appear in the course.

# Unit 2: Europe, the Americas, and Africa, Before 1492

In this unit, students will do the following:

- Analyze how native populations of North America developed distinct cultures by adapting to their environment.
- Assess the changes caused by contact among Native Americans, Europeans, and Africans through the Columbian Exchange.

# Sample activities in this unit:

- Students will analyze the interaction, competition, and conflict among Native American groups. In
  response to a series of prompts, students will provide short written explanations of the conflicts
  among tribes in the Mississippi Valley, the relationship between the Aztecs and nearby tribes,
  and trade patterns of the Maya based on the natural resources in their regions. [CR 4: Theme 6
  (GEO-1.0)]
- Students will analyze the relationship between culture and the environment for different Native American groups across regions and periods. In a short essay, students will describe a Native American culture, including how the culture adapted to its environment, its cultural characteristics, and how the culture is different than some of the others at the time. Students will gather information about this culture from the textbook and by conducting research.(Skill 5) [CR 4: Theme 8 (SOC-4.0)]
- Students will analyze the patterns of exchange that developed in the world as a result of the Columbian Exchange. In response to a prompt, students will select two of four primary sources and write a paragraph for each source that explains how it shows the lasting impact of the European exploration and the Columbian Exchange on the Americas. Students will synthesize

information from the lessons, textbook readings, and primary sources to support their explanations. Students will also analyze the involvement of governments regarding this issue. [CR 4: Theme 3 (WXT-2.0) and Theme 7 (WOR-1.0)]

Required reading: *By the People*, Chapter 1: The World Before 1492 and Chapter 2: First Encounters, First Conquests, 1492–1607 [CR 2]

Potential readings and images: Excerpt from The *Decameron* by Giovanni Boccaccio; "The Renaissance as Historical Period" from Scholastic GO! Grolier Online™; image of Viking long ships; image of *Niña*, *Pinta*, and *Santa María*; excerpt from *The Letters of Columbus to Ferdinand and Isabella*; excerpts from Hernán Cortés's letter to the king of Spain; painting of Pocahontas and John Smith; images and primary source text from "An Ongoing Voyage: What Became of 'America'" and "1492: An Ongoing Voyage" exhibitions from Library of Congress [CR 1, CR 5, CR 6]

# Unit 3: Settling North America, 1607–1754

In this unit, students will do the following:

- Evaluate the European motivations for settling North America.
- Analyze the effects of European settlement, including competition for resources and conflict.
- Examine the political, social, cultural, and economic connections between the British colonies and Great Britain.

#### Sample activities in this unit:

- Students will examine the role of religion in the development of colonial North America. Students will analyze "A Model of Christian Charity" from John Winthrop. In one or two paragraphs, students will explain the purpose of this sermon, describe the author's point of view on the qualities he encourages, summarize the meaning of the sermon, and explain its historical significance. (Skill 4) [CR 4: Theme 4 (ARC-1.0) and CR 5]
- Students will analyze the economy and culture of colonial North America. In response to a
  prompt, students will write a two- to three-paragraph Time Traveler's Tourist Guide to colonial
  New France, describing its economic activities, and demographic and cultural characteristics.
  Then, as an extension to this activity, students will take on the perspective of a French explorer,
  trader, or colonist and write a letter in which they explain this person's motivations, goals, and
  challenges. In this letter, students should

- also compare and contrast French colonization with colonization by other European powers. [CR 4: Theme 5 (MIG-1.0), and CR 8]
- Students will explain how different labor systems developed in the North American colonies and their effects on workers' lives. In response to a series of questions, students will write several paragraphs to explain how the European slave trade developed, the impact of indentured servitude on these people's lives, how slavery manifested in the northern colonies, the changes in the demographics of labor in Virginia, and what life was like for slaves in the colonies. Students will conduct research using primary and secondary sources about mercantilism, and James Oglethorpe's settlement of Georgia and write a two to three paragraph-long report citing primary and secondary sources

(Skill 2) [CR 4: Theme 3 (WXT-1.0)]

- Students will explain how conflict between peoples influenced political developments in North America. In response to prompts, students will write one or two paragraphs to explain the causes and effects of ongoing wars between Britain and France and violence between Native Americans and colonists. [CR 4 Theme 7 (WOR-1.0)]
- Students will identify and explain historical developments and processes related to the formation
  of the United States by evaluating primary sources from Benjamin Franklin as well as the Albany
  Plan. Students will explain how these documents reflect a changing attitude in the British North
  American colonies toward self-governance and independence. (Skill 1) [CR 1: Theme 6 (WOR-1.0)]

Required reading: *By the People*, Chapter 3: Settlements, Alliances, and Resistances, 1607–1718 and Chapter 4: Creating the Culture of British North America, 1689–1754 [CR 2]

Potential readings and images: Excerpt from primary source text by Sir Robert Montgomery; excerpt from John Winthrop's "A Model of Christian Charity"; table of England's American and Island Colonies; painting of Elizabeth I; quote from Sir William Herbert; quote from French Jesuit missionary; quote from Huron Indian to Jesuit missionary Jean de Brébeuf; map of Gulf Coast; letter from Governor of New Mexico; excerpt from a letter by John Rolfe; Olaudah Equiano's "The Middle Passage"; "Religion and the Founding of the American Republic: Religion in Eighteenth-Century America" article and images from the Library of Congress; excerpt from John Locke's *The Second Treatise of Government*; excerpt from a letter to New England Minister John Cotton; quote from Andrew Hamilton during the trial of John Peter Zenger; "A Brief History of the Salem Witch Trials" article;

"Crown v. John Peter Zenger" article; map of British colonies; letter from Benjamin Franklin to James Parker; Albany Plan of Union with table [CR 1: Textual, Visual, Maps, and Quantitative]

#### Unit 4: The American Revolution, 1754–1783

In this unit, students will do the following:

- Assess the impact of the French and Indian War on British policies.
- Examine the colonial responses to specific British policies.
- Apply the concepts in the Declaration of Independence to specific historical events and trends.
- Evaluate the outcomes of the American Revolution.

# Sample activities in this unit:

- Students will analyze the causes, events, and effects of Pontiac's Rebellion. Students will read three primary source documents: an excerpt from a speech by Pontiac, an excerpt from a letter by George Washington, and an excerpt from the journal of William Trent. For each source document, students will write a paragraph analyzing the author's purpose, point of view, audience, and historical situation. Students will provide supporting details. Then, students will write several paragraphs to explain how these primary source documents help summarize the causes, events, and effects of Pontiac's Rebellion as well as how Native Americans and colonial British leaders viewed each other. (Skill 2) [CR 4: Theme 1 (NAT-4.0) and Theme 4 (ARC-4.0) and CR 8]
- Students will analyze the desire of many colonists to assert ideals of self- government in the face of renewed British imperial efforts. In a portfolio writing assignment, students will study acts of Parliament and then write an essay in which they develop and defend an argument that includes a thesis statement about whether the colonists were justified in breaking the law when protesting against British policies. Students will synthesize evidence from the entire unit and support their position or claim with historical sources. [CR 4: Theme 2 (POL-1.0), CR 7, and CR 9]
- Students will read an excerpt from Jonathan Mayhew's "A Discourse Concerning Unlimited Submission" and analyze his argument in favor of American independence. (Skill 3) [CR 6: Theme 1 (WOR-1.0)]

Required reading: By the People, Chapter 5: The Making of a Revolution, 1754–1783 [CR 2]

Potential Readings: Excerpt from Archibald Hinshelwood, 1765; excerpt from resolutions on the Stamp Act, Massachusetts Assembly; excerpt from *Common Sense*; excerpt from Abigail Adams, letter to John Adams; excerpt from Washington's Circular Letter of Farewell to the Army; quote from Minavavana to Alexander Henry; quote from Archibald Hinshelwood [CR 1: Textual]

# Unit 5: Building a Nation, 1783-1800

In this unit, students will do the following:

- Assess the impact of the American Revolution on society.
- Evaluate the experiments in government that resulted from the American Revolution
- Compare the structure of government under the Articles of Confederation versus the U.S.
   Constitution.

# Sample activities in this unit:

- Students will explain the debates and controversies after the Constitutional Convention. In response to a prompt, students will read historical newspaper editorials in favor of and opposed to the ratification of the Constitution, analyzing the arguments used. Then, students will write their own editorial, focusing on a specific part of the Constitution, and express an opinion about whether to ratify the Constitution or not. [CR 4: Theme 1 (NAT-2.0)]
- Students will explain the arguments presented during the debate over the ratification of the
  Constitution. In a discussion, students will analyze the Federalist paper No. 84 and the
  Antifederalist essay "Brutus II" and discuss the significance of the author's point of view, the
  author's purpose, the audience, and the historical context of both documents. In response to the
  discussion questions, students will explain each author's interpretation of the Constitution
  without a Bill of Rights. [CR 4: Theme 1 (NAT-2.0) and CR 5]
- Students will explain how the political party system developed in the early United States. Over
  the course of a lesson, students will respond to several prompts and write several paragraphs to
  explain why political parties developed. Then, students will create three political posters for the
  election of 1800—one for each of the major candidates—to highlight the political beliefs of each
  candidate as well as the candidate's primary critiques of his opponents. [CR 4 (POL-1.0)]

Required reading: *By the People*, Chapter 6: Creating a Nation, 1783–1789, and Chapter 7: Practicing Democracy, 1789–1800 [CR 2]

Potential images: Engraving of Shays's Rebellion; chart of strengths, weaknesses, and impacts of the Articles of Confederation; images of tributes to George Washington [CR 1: Visual]

# **Unit 6: Mid-Semester Check**

In this unit, students will do the following:

 Demonstrate knowledge that they have learned from the beginning of the course by completing a graded mid-semester check in the style of the AP United States History exam.

# Unit 7: Manifest Destiny, 1801–1853

In this unit, students will do the following:

- Examine the emerging culture of the United States after the revolution.
- Assess the changes in the U.S. economy resulting from technological and commercial innovations.
- Evaluate the effects of expanding the land area of the United States based on Manifest Destiny.

#### Sample activities in this unit:

- Students will analyze the impact of religion on American politics, society, and culture by determining the extent to which religion and religious freedom were part of the national identity. In responses to a series of prompts, students will study the First Amendment as well as primary source documents and images and write several paragraphs to explain how religion united and divided Americans as well as the influence of federalism and republicanism on debates about religion. [CR 4: Theme 1 (NAT-1.0) and Theme 4 (ARC-1.0)]
- Students will analyze historical perspectives on Indian removal. Students will study three primary source documents expressing perspectives on Indian removal. By responding to prompts, students will write several paragraphs in which they analyze Jackson's point of view as president to understand his policy, how opponents responded to his perspective, and how the gender of the authors who wrote the opposing petitions affected their reception and place in society. [CR 4: Theme 4 (ARC-3.0) and CR 7]
- Students will analyze how scientific ideas and technological innovations developed and shaped society, institutions, and economic development. In responses to a series of questions about readings and videos, students will write several paragraphs to explain how the Industrial Revolution began, how the cotton gin impacted the institution of slavery, how water-powered textile mills shaped New England, and how transportation improvements impacted industrialization. [CR 4: Theme 8 (SOC-2.0) and Theme 3 (WXT-3.0)]
- Students will explain how migration affected American life. In response to a prompt, students will write a paragraph to describe the impact of increased settlement in Oregon on the people who lived there. [CR 4: Theme 5 (MIG-2.0)]
- Students will assess the ideology of Manifest Destiny over the course of the nineteenth century. In responses to a series of questions, students will write several paragraphs to explain the most significant components of this

- ideology, how certain policies were justified based on it, and its most consequential outcomes. [CR 4: Theme 2 (POL-1.0) and CR 8]
- Students evaluate the motivations behind Manifest Destiny and evaluate the strengths and weaknesses of this ideal. In a discussion, students will analyze an excerpt from F. Jackson Turner's "The Frontier in American History" to determine its context and purpose. Then, students will explain Turner's thesis and why internal migration and patterns of settlement were causing the frontier to disappear. [CR 4: Theme 5 (MIG-2.0) and Theme 6 (GEO-1.0)]

Required reading: *By the People*, Chapter 8: Creating a New People, Expanding the Country, 1801–1823; Chapter 9: New Industries, New Politics, 1815–1828; and Chapter 11: Manifest Destiny: Expanding the Nation, 1830–1853 [CR 2]

Potential readings and images: Excerpts from Bill of Rights; timeline of significant dates; map of Louisiana Purchase; excerpt from Monroe Doctrine; advertisement for Blandy's portable steam engine and saw mills; quote from Black Hawk; quote from John O'Sullivan [CR 1: Textual, Visual, Maps, and Quantitative]

# Unit 8: Jacksonian Democracy, 1824–1854

In this unit, students will do the following:

- Assess the effects of Jackson's presidency on the U.S. economy and politics.
- Evaluate how immigration, the debate over slavery, and the growth of the women's rights movement influenced the lives of Americans.
- Examine changes brought by the struggle to expand rights and citizenship to those in the United States.

#### Sample activities in this unit:

- Students will assess the effects of Jackson's presidency on the U.S. economy and politics. In response to a series of prompts, students will analyze the extent to which President Jackson represented the nation's interests as president. Then, students will analyze primary source excerpts from
- President Jackson, Henry Clay, and *McCulloch v. Maryland* and write a paragraph to determine whether the message of these excerpts contradicts, supports, or enhances the perspectives discussed in the lesson materials so far. Finally, students will examine a secondary source video and write a paragraph to explain why scholars think that Jackson's presidency represented the beginning of modern American democracy. [CR 4: Theme 2 (POL-1.0) and CR 8]

- Students will explain how artistic and philosophical ideas shaped politics. After reading about transcendentalism and excerpt from Emerson, students will respond to a prompt and write a paragraph to explain why Henry David Thoreau and Andrew Jackson would have agreed or disagreed about certain ideas. [CR 4: Theme 4 (ARC-2.0)]
- Students will analyze race and gender in American society during this time. In response to a prompt, students will read and analyze Sojourner Truth's speech "Ain't I a Woman?" and write several paragraphs to explain what it expresses about the role of women and race in American society. [CR 4: Theme 4 (ARC-3.0)]
- Students will compare the abolition movement that developed in the mid-1800s to earlier movements. In response to a series of prompts, students will write several paragraphs to explain how and why earlier movements influenced the growth of the abolition movement. [CR 4: Theme 2 (POL-2.0) and CR 8]
- Students will analyze similarities and differences between religious groups and spiritual movements across regions and periods. (Skill 5) [CR 4: Theme 8 (SOC-1.0)]

Required reading: *By the People*, Chapter 10: Democracy in the Age of Jackson, 1828–1844 and Chapter 12: Living in a Nation of Changing Lands, Changing Faces, Changing Expectations, 1831–1854 [CR 2]

Potential readings and images: quote from Margaret Smith about inauguration of Jackson; posters from Jackson's presidential campaign; excerpt from President Jackson's veto message regarding the Bank of the United States; excerpt from Henry Clay's speech "In Defense of the American System"; excerpt from *McCulloch v. Maryland*; map of Indian removal; excerpt from Madison's letter against nullification; excerpt from Horace Mann's *The Necessity of Education in a Republican Government*; excerpt from Declaration of Sentiments; Sojourner Truth's speech "Ain't I a Woman?"; map showing expanding slavery; selected lyrics from

"Follow the Drinking Gourd" song [CR 1: Textual, Visual, and Maps]

# Unit 9: The Civil War, 1850-1877

In this unit, students will do the following:

- Evaluate why the growing split between the North and the South led to secession and civil war.
- Assess the strategies used during the Civil War.
- Examine the impact of the war on American society, politics, and the economy.
- Evaluate the successes and failures of the Reconstruction era.

#### Sample activities in this unit:

- Students will evaluate the Reconstruction era using secondary sources. In a short essay, students will explore, compare, and critically analyze two historical interpretations of the Reconstruction era: Joseph Grégoire de Roulhac Hamilton's *Reconstruction in North Carolina* (New York: Columbia University, 1914) and Eric Foner's "Freedom's Dream Deferred" published in *American History*, vol. 50, no. 5 (Virginia: Historynet, 2015). [CR 1, CR 4: Theme 2 (POL-3.0), and CR 6]
- Students will evaluate the impact the policies after Reconstruction. In a portfolio writing
  assignment, students will read and analyze excerpts from early black codes as well as newspaper
  editorials that are critical of these codes. Then, students will write an essay in which they
  describe the causes and reasons for black codes, explain the effects on African Americans, and
  determine the extent to which black codes were another form of slavery. [CR 4: Theme 2
  (POL-1.0), and CR 8]

Required reading: *By the People*, Chapter 13: The Politics of Separation, 1850–1861; Chapter 14: And the War Came: The Civil War, 1861–1865; and Chapter 15: Reconstruction, 1865–1877 [CR 2]

Potential readings and images: Excerpt from the *Charleston Mercury*; poster of reward for fugitive slaves; selected lyrics from "John Brown" song; engraving of John Brown; primary source newspaper articles about Kansas-Nebraska Act; map reflecting the Compromise of 1850 and the Kansas-Nebraska Act; fragment of speech by Lincoln about Dred Scott case; excerpt from Lincoln-Douglas debate; map showing results of the election of 1860; excerpt from South Carolina Ordinance of Secession; map of major Civil War battles, 1861–1862; Constitution of the United States; Constitution for the Provisional Government of the Confederate States of America; paintings of Civil War soldiers; image of Scott's Great Snake; bar graphs comparing industrial workers, factories, and railroad tracks in Union vs. Confederacy; Gettysburg Address; map of major Civil War battles, 1863–1865; Thirteenth Amendment; letter from General Sherman to Lincoln; excerpt from Robert E. Lee's Farewell Address; image of "The First Vote"; excerpts from black codes; selected articles from *Chicago Tribune* [CR 1: Textual, Visual, Maps, and Quantitative]

#### **Unit 10: Semester Exam**

In this unit, students will do the following:

- Review all topics covered this semester.
- Demonstrate knowledge by completing a graded semester exam written in the style of the AP United States History exam.

#### Semester B

#### **Unit 1: Course Overview**

In this unit, students will do the following:

- Acquaint themselves with the goals and expectations of the course.
- Ensure they have the required materials for the course.
- Learn about the types of activities that will appear in the course.

# Unit 2: The Gilded Age, 1866-1914

In this unit, students will do the following:

- Determine the factors that spurred the growth of industrial capitalism in the United States.
- Analyze the social and cultural impact of the migrations caused by industrialization on both urban and rural areas.
- Assess the cultural, intellectual, economic, and political movements that emerged from and in response to the Gilded Age.

#### Sample activities in this unit:

- Students will analyze Andrew Carnegie's perspective on industrial capitalism. In a discussion, students will read Carnegie's essay on wealth. In response to discussion questions, students will examine how it addressed the economic and social challenges of its time, describe the tradeoffs in U.S. values implied by the choices that he outlined, and frame Carnegie's argument in the context of a nation at a crossroads with the Industrial Revolution and widening class divisions. Students will also discuss the meaning of Carnegie's Gospel of Wealth and explain its historical significance, using evidence from the document to support their ideas. [CR 4: Theme 3 (WXT-1.0) and CR 7]
- Students will describe how African Americans viewed their role in the U.S. economy and society
  after Reconstruction. Students will read and analyze excerpts from W.E.B. Du Bois and Booker T.
  Washington and write a short essay in which they describe these authors' purpose and point of view
  on
  - how African Americans will be successful in the New South. (CR 4: Theme 1 (NAT-4.0) and Theme 8 (SOC-2.0)]
- Students will write a paragraph in which they analyze the ways in which the poem "The New Colossus" by Emma Lazarus reflects the spirit of the Gilded Age. (Skill 4) [CR 4: Theme 4 (ARC-1.0)]

Required reading: *By the People*, Chapter 16: Conflict in the West, 1865–1912; Chapter 17: The Gilded Age: Building a Technological and Industrial Giant and a

New Social Order, 1876–1913; and Chapter 18: Responses to Industrialism, Responses to Change, 1877–1914 [CR 2]

Potential readings and images: Painting of "American Progress"; Red Cloud's speech after Wounded Knee; transcript of Dawes Act; "Home on the Range" audio and lyrics; images of cowboys and frontier towns; excerpt from Mark Twain's *The Gilded Age*; "The Great Presidential Puzzle" political cartoon; photographs of Ellis Island;

"The New Colossus" by Emma Lazarus; images of immigrants; "The Anti-Chinese Wall" political cartoon; "The Great Department Store on Earth" political cartoon; excerpt from Henry Grady's "The New South"; excerpt from Ida B. Wells' *The Red Record*; excerpt from W.E.B. Du Bois's *The Talented Tenth*; excerpt from Booker T. Washington's "Cast Down Your Buckets Where You Are" speech; excerpt from "Wealth" by Andrew Carnegie; IWW recruitment poster; portrait of a granger [SC 1b: Textual and Visual]

# Unit 3: The Progressive Movement, 1879–1919

In this unit, students will do the following:

- Evaluate Progressive efforts to address the social and economic problems created by rapid growth.
- Explain the methods used by Progressives to address political corruption and to enact other political reforms.
- Compare the social and political efforts of Progressives on both the national and local level.

# Sample activity in this unit:

• Students will evaluate the social and economy problems during this time and explain the methods used by Progressives to address these problems. Students will choose a problem, examine primary sources related to that problem, and write a muckraking article in the style and tone of similar articles from Progressive journalists. [CR 4: Theme 2 (POL-2.0)]

Required reading: *By the People*, Chapter 19: Progressive Movements, Progressive Politics, 1879–1917 [CR 2]

Potential readings and images: Excerpt from Louis Brandeis; excerpt from *The Jungle* by Upton Sinclair; "On Riding a Bicycle" by Frances E. Willard; "The Siren Song of Partisanship" political cartoon; "On to Washington!" campaign poster; "How the Other Half Lives" by Jacob A. Riis; map of Prohibition in the States; map of major national parks; map and table showing results of election of 1912 [CR 1: Textual, Visual, Maps, and Quantitative]

#### Unit 4: World War I, 1914-1918

In this unit, students will do the following:

- Evaluate the various viewpoints about the role of the United States in the world and the best way to achieve national security before, during, and after World War I.
- Analyze how World War I transformed American society.

# Sample activities in this unit:

- Students will evaluate the shifting foreign policy goals and national ideals of the United States before and after World War I. In a portfolio writing assignment, students will analyze excerpts from Presidents Wilson's "Joint Address to Congress Leading to a Declaration of War Against Germany," "Henry Cabot Lodge: Reservations with Regard to the Treaty," "An excerpt from the Senate Debate on the League of Nations," and "Wilson's Final Address in Support of the League of Nations." Students will write an essay that examines the arguments in primary sources for and against the League of Nations and compare them with the arguments for and against U.S. involvement in World War I. Students will make a claim supported by historical sources. [CR 4: Theme 1 (NAT-3.0) and Theme 7 (WOR-2.0), and CR 8]
- Students will evaluate social responses to U.S. involvement in World War I. Students will read an interview with a conscientious objector during World War I and write a short essay explaining this person's reasons for refusing to fight in the war. [CR 4: Theme 1 (NAT-3.0) and Theme 2 (POL-2.0)]

Required reading: *By the People*, Chapter 20: Foreign Policy and War in a Progressive Era, 1890–1919 [CR 2]

Potential readings and images: "Westward the Course of Empire Takes Its Way" painting; photographs and paintings of Hawaiian royalty; newspaper accounts of the Alaska Purchase; map of the United States in the world, 1900; "Then and Now" political cartoon; quote from Mark Twain; "A Thing Well Begun Is Half Done" political cartoon; quote from President Taft; "The Tug of War in the Far East" political cartoon; excerpt from President Theodore Roosevelt's Third Annual Message to Congress; map of U.S. intervention in the Caribbean and Latin America; excerpt from President Woodrow Wilson's 1914 Message to Congress; "Watch Your Step" political cartoon; photographs from World War I; map of Europe and the Middle East before and during World War I; excerpt from President Woodrow Wilson's 1917 Inaugural Address; wartime posters; map of Europe in 1919 [CR 1: Textual, Visual, and Maps]

© 2018 Pearson Online & Blended Learning K–12 USA. All rights reserved.

# Unit 5: The Great Depression, 1919–1939

In this unit, students will do the following:

- Evaluate the increasing influence of popular culture and consumerism on U.S. society.
- Compare and contrast the growing social trends of fundamentalism and modernism in the 1920s.
- Compare the social and political efforts of Progressives on both the national and local level.
- Analyze the causes of the Great Depression.
- Assess the short-term and long-term consequences of the Great Depression and the New Deal.

# Sample activities in this unit:

- Students will analyze national identity in regards to citizenship through the lens of the
  Progressives and immigration policies. Students will analyze "Our Ideal Citizen" by Sinclair Lewis
  and the Quota Act of 1924. Using these documents, students will respond to prompts in order to
  explain who an ideal citizen is based on the text, why this description is important to
  understanding the national identity, who the ideal immigrant is, and what this suggests about
  American values during this time. [CR 4: Theme 1 (NAT-4.0) and Theme 5
  (MIG-1.0)]
- Students will evaluate the different approaches to addressing the Great Depression through New Deal legislation. Students will use a graphic organizer to categorize various legislation by relief, recovery, and reform to show ways in which the government responded to economic issues. Then, students will describe the problem each piece of legislation was intended to address and the opposition to the legislation. [CR 4: Theme 2 (POL-3.0) and Theme 3 (WXT-2.0)]

Required reading: *By the People*, Chapter 21: A Unique, Prosperous, and Discontented Time, 1919–1929 and Chapter 22: Living in Hard Times, 1929–1939 [CR 2]

Potential readings and images: Photograph of IWW meeting; political cartoon about IWW; photograph of KKK parade; "Our Ideal Citizen" by Sinclair Lewis; Quota Act of 1924; map of people moving in the 1920s; maps comparing Harlem in 1911 and 1930; "Share Our Wealth" by Huey Long; table of major New Deal laws and agencies; map of the Dust Bowl [CR 1: Textual, Visual, Maps, and Quantitative]

#### **Unit 6: Mid-Semester Check**

In this unit, students will do the following:

- Review the topics that they have learned from the beginning of this semester.
- Demonstrate knowledge by completing a graded mid-semester check in the style of the AP United States History exam.

#### Unit 7: World War II, 1939-1945

In this unit, students will do the following:

- Examine the course of World War II, including military tactics, mobilization of the U.S. economy and society, and the war's impact on diverse American lives.
- Determine how World War II transformed American society.
- Analyze how the U.S. role in the Allied victory ushered in a new era of American global, political, and military leadership.

# Sample activities in this unit:

- Students will compare the peace movements during World War I and II. Students will conduct
  research on these peace movements and write a comparative essay in which they analyze the
  similarities and differences in terms of the movements' historical contexts, what the similarities
  suggest about each movement, their goals, and how consistent their goals were with each
  context. [CR 4: Theme 2 (POL-2.0) and CR 8]
- Students will evaluate American leadership in global politics after World War
   II. In a discussion, students will read an excerpt from President Eisenhower's "military-industrial complex" speech and discuss the dangers he warned against and how these dangers were a result of World War II. Then, students will take a position on whether his concerns were valid, using evidence to support their opinion. [CR 4: Theme 1 (NAT-3.0) and Theme 7 (WOR-2.0) and CR 8]

Required reading: By the People, Chapter 23: Living in a World at War, 1939–1945 [CR 2]

Potential readings and images: 1932 campaign poster for Hitler; Lend-Lease Act; - photographs of Nazi leaders and soldiers; map of Nazi Europe, 1941; hand-drawn map of Japanese Empire in 1933; graph of U.S. unemployment rate and GNP from 1940–1945; map of Japanese power in the Pacific; map of internment camps; map

of the War in Europe and North Africa; map of the War in the Pacific; wartime posters; transcript of Joint Address to Congress Leading to a Declaration of War Against Japan; photographs of Allied soldiers; photographs of wartime efforts on the home front [CR 1: Textual, Visual, Maps, and Quantitative]

#### Unit 8: Prosperity and Change, 1945-1989

In this unit, students will do the following:

- Examine how the United States established and maintained its leadership position in global politics.
- Assess the impact of post-war prosperity and a desire for normalcy in society, politics, and culture.
- Analyze the debates over the power of the federal government and the appropriate means of achieving political goals both internationally and domestically.
- Evaluate the successes of the civil rights movement in meeting its political and legal goals as well as the subsequent cultural and political responses to the movement.

# Sample activities in this unit:

- Students will analyze life in post-war United States. In an activity, students will identify historical
  patterns of continuity and change and determine the causes and effects of these changes by
  writing a short essay. (Skill 5) [CR
- Students will analyze the reasons for and results of U.S. diplomatic, economic, and military
  initiatives overseas. Students will make two cause- and-effect chains for the Korean and Vietnam
  Wars. Then, students will write a short essay to compare and contrast these two wars and to
  explain why U.S. intervention in East Asia escalated in ways that interventions in Latin America did
  not. [CR 4: Theme 7 (WOR-2.0), and CR 8]
- Students will compare and contrast various perspectives on the role of the federal government in American lives, analyzing cause and effects. In response to a series of prompts, students will read excerpts from speeches by Presidents Eisenhower, Kennedy, and Johnson. Students will write a short essay in which they consider the cause and effects of the Cold War and contrast the tone and ideas of the latter two presidents with Eisenhower in order to determine how these differences have affected political debates and policies. (Skill 5) [CR 4: Theme 2 (POL-3.0) and CR 8]
- Students will analyze the arguments for and against segregation. In a portfolio writing assignment, students will study a series of primary sources,

including excerpts from Harry Brigs v. Elliot, Davis v. Country School Board, and Brown v. Board. Then, students will write an argumentative essay that includes a thesis statement about the legal arguments used on both sides, using evidence from the excerpts to support their thesis. [CR 4: Theme 1 (NAT-1.0), CR 8, and CR 9]

Required reading: By the People, Chapter 24: The World the War Created, 1945–1952; Chapter 25: Complacency and Change, 1952–1965; Chapter 26: Lives Changed, 1961–1968; Chapter 27: Rights, Reaction, and Limits, 1968–1980; and Chapter 28: The Reagan Revolution, 1980–1989 [CR 2]

Potential readings and images: photograph of returning U.S. soldiers; photograph of Levittown; excerpt from President Truman's Inaugural Address; bar graph showing number of births for the United States from 1929–1980; map of "Americans on the Move"; line graph showing share of African American population living in southern United States from 1910-1970; map of "A Divided Germany"; map of "A Divided Europe"; excerpt from Truman Doctrine; excerpt from Marshall Plan; excerpt from press release announcing U.S. recognition of Israel; Chinese propaganda poster; photograph of bomb shelter; map of the interstate highway system; photographs of Vietnam war protests; photograph of Berlin Wall; excerpt from Armistice Agreement for the Restoration of the South Korean State; aerial photograph of missiles in Cuba; excerpt from Tonkin Gulf Resolution; map of "Civil Rights Events, 1953-1963"; photographs of segregation; Executive Order 10730: Desegregation of Central High School; excerpt from the Civil Rights Act (1964); excerpt from the Voting Rights Act; photograph from March on Washington; map of "Americans in Poverty"; thematic map showing "The Impact of the Voting Rights Act"; map showing "The War in Vietnam"; quote from President Richard Nixon; quote from Chief Justice Warren Burger; quotes from President Reagan; bar graphs comparing real family income from 1980-1990; photograph of protest against ERA; map showing "Support of and Opposition to the ERA"; map of U.S. nuclear plants [CR 1: Textual, Visual, Maps, and Quantitative]

#### Unit 9: A New World Order, 1989-The Present

In this unit, students will do the following:

- Analyze the impact of new technologies and scientific advancements on the American economy and society.
- Assess the significance of the new global challenges that emerged after the end of the Cold War.
- Evaluate the motives, goals, and popularity of the conservative movement that emerged during the 1980s.

- Examine the changes in the United States as a result of new foreign, economic, and technological issues.
- Analyze the most recent history of the United States from September 11, 2001, to the present.

#### Sample activities in this unit:

- Students will analyze the technological changes that have occurred in the United States in the twenty-first century. Students will select their most prized technological possession, such as a smartphone or laptop, and describe this device to someone living 20 years ago. Students will write a short essay to describe how the technology works and why it is both culturally and economically important today. [CR 4: Theme 3 (WXT-3.0)]
- Students will connect the 2008 financial crisis and Hurricane Katrina. In response to a prompt, students will write a paragraph to evaluate the extent to which each event was both a natural disaster and a human-made disaster, using evidence from the lesson materials to support their response. [CR 4: Theme 6 (GEO-1.0) and CR 8]

Required reading: *By the People*, Chapter 29: A New World Order, 1989–2001 and Chapter 30: Entering a New Time, 2001 to the Present [CR 2]

Potential readings and images: quote from "New World Order" speech by President George H.W. Bush; map of "Europe after Communism"; map of former Yugoslavia; photographs of new technological devices; photograph of World Trade Center attacks; map showing results of 2000 election; excerpts from speeches by President George W. Bush; map of Afghanistan and Iraq; photographs from after Hurricane Katrina [CR 1: Textual, Visual and Maps]

# Unit 10: Review and Full-Length Practice Exam

In this unit, students will do the following:

- Review the entire course, using the results of the mid-semester check and unit tests to focus
  this review. This includes analysis of the cause and effects of key events and developments
  after the Civil War. (Skill 5)
- Complete a full-length practice exam in the style of the AP United States History exam, over the course of four days.

#### **Unit 11: Semester Project**

In the project unit, students will choose one of the seven themes covered in this course (American and National Identity; Politics and Power; Work, Exchange, and

Technology; Culture and Society; Migration and Settlement; Geography and the Environment; or America in the World) and analyze historical developments and processes related to the theme. Students will draw on the information they learned throughout both semesters to create a multimedia presentation that showcases the theme's relevancy. Students analyze and cite scholarly secondary sources as they develop a thematic presentation portfolio. (Skills 1, 2, 3) [CR 4: may cover any theme depending on student choice]

#### **Unit 12: Semester Exam**

In this unit, students will do the following:

• Demonstrate knowledge from this semester by completing a graded semester exam written in the style of AP United States History.

# APPENDIX A CURRICULUM

**A.2 COURSE GUIDES** 

h. HEALTH AND PHYSICAL EDUCATION

**Cover Sheet** 

This document is part of Appendix A: Curriculum.

It includes course guides for each Health and Physical Education class.

- Health and Physical Education 6
- Health and Physical Education 7
- Health and Physical Education 8
- Health, Fitness and Nutrition
- Personal Fitness
- Physical Education 1
- Physical Education 2

- Physical Education 3
- Physical Education 4
- Physical Education 5
- Physical Education K
- Physical Education

Course guides provide detailed information on the curriculum including course descriptions, unit summaries, lesson objectives, activities, and assessment types. Course guides include information on:

- Planned instruction (provided in the unit summary of each unit within individual Course Guides)
- Course objectives (provided in the unit and lesson objectives within individual Course Guides)
- Activities (provided in the unit summary and lesson objectives of each unit within individual Course Guides)

**Cover Sheet** 

Pennwood Cyber Charter School Application

# **Health and Physical Education 6**

Appendix A.2.f. Health and Physical Education Course Guides



# **Health and Physical Education 6**

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

# **Course Summary:**

The Health course will provide the student with the foundation for concepts and skills necessary for lifelong health and physical fitness. In the health portion of the course, the student will be introduced to and assessed on various topics ranging from body systems to proper nutrition and fitness, as well as understanding what it means to be healthy. The student will also be introduced to skills that can be applied toward healthy behaviors. The physical education portion of the course will offer great freedom as the student will be able to choose a physical education regimen that will fit the student's individual needs. The student will be given a choice of three paths that place emphasis on lifelong activities as well as current fitness trends. Physical education lessons are geared toward a "physically fit" lifestyle that will aid the student in the years to come and ensure a higher quality of life.

# **Course Outline**

#### Health and Physical Education 6

#### 1. Your Health and Wellness

- 1. Overall Health
  - Identify the three parts of the health triangle
  - Describe the relationship between overall health and wellness
  - Explain the importance of maintaining balance among your physical, mental/emotional, and social health
- 2. Factors Affecting Your Health
  - Identify factors that affect your health
  - Explain how your behavior and choices play a role in your health
  - Describe how your health is affected by your behavior
- 3. Your Health Is Your Responsibility
  - Identify skills that help you maintain a healthy life
  - Explain the importance of healthy life skills
- 4. Responsible Decision Making
  - Identify the steps involved in making responsible decisions
  - Explain the importance of values when making decisions
  - Practice good decision-making skills
- 5. Create Your Health Goals
  - Explain the importance of having goals

Appendices page 2294 Pennwood Cyber Charter School

- Describe the steps of setting goals
- Develop a plan to achieve your goals

#### 2. Your Character Counts

- 1. A Healthy Self-Concept
  - Describe your self-concept
  - Identify what influences your self-concept
  - Explain how you can build a healthy self-concept

#### 2. Your Character Counts

- Identify good character traits
- Explain how character is developed
- Describe what defines good character

# 3. Expressing Emotions

- Explain what causes emotions
- Express strong feelings in a healthy way
- Discuss the importance of teen abstinence

#### 4. Stress is All around Us

- Explain what stress is
- Describe how stress affects the body
- List strategies for managing stress

#### 5. Emotional Problems

- Describe the different types of emotional problems
- Recognize key warning signs of suicide
- Identify resources for help with emotional problems

#### 3. Healthy Relationships

- 1. Communication Skills
  - Explain the various ways people communicate
  - Describe how to become a better speaker and listener
  - Identify the three communication styles

# 2. Your Family

- Recognize various types of family structures
- Identify your family role
- Explain how members of a family care for each other

# 3. Friends and Peers

- Identify the qualities a good friend should have
- Recognize the character traits of friends
- Compare and contrast the two different types of peer pressure

#### 4. How to Use Refusal Skills

- Identify how to resist peer pressure using refusal skills
- Demonstrate negative peer pressure refusal skills

# 5. Resolving Conflicts

- Explain the reason for conflicts
- Describe methods of protecting yourself from violence
- Discuss negotiation strategies for resolving conflicts

# 4. Nutrition

# 1. Nutrients Your Body Needs

- Identify the six main nutrient groups
- Determine the proper foods you can eat to obtain nutrients
- Analyze a recipe for key nutrients

# 2. Guidelines for Eating Healthy

- Identify the five food groups
- Discuss the proper use of the MyPlate food guidance system
- Demonstrate how to use the MyPlate to plan a nutrient-rich meal

# 3. Healthy Choices

- Recognize what influences your food choices
- Interpret guidelines for choosing healthy foods
- Explain how healthy weight is maintained
- Examine the various eating behavior problems

#### 5. Personal Health

- 1. Your Teeth, Skin, and Hair
  - Demonstrate how to keep your teeth and gums healthy
  - Discuss examples of how to take care of your skin
  - Describe the proper care for hair and nails

# 2. Protecting Your Eyes and Ears

- Outline proper care for your eyes and ears
- Demonstrate how to protect your hearing

# 3. Choosing Health Products

- Explain influences on your consuming choices
- Demonstrate how to wisely choose health products
- Evaluate how consumer choices are influenced by the media

# 4. Using Medicines Responsibly

- Explain the benefits of medicine
- Interpret medicine label information

# 5. Health Care in Your Community

- Distinguish between the different types of health care providers
- Outline the importance of regular health checkups

# 6. First Aid for Emergencies

- Explain strategies for responding to injuries
- Outline the steps to help someone who is bleeding
- Demonstrate the universal sign for choking
- Describe how to help a burn victim

# 6. Human Body Systems

- 1. Your Cells and Systems
  - Connect the body's building blocks
  - Classify the major body systems and describe their functions

# 2. Bones and Muscles Working Together

- Classify the parts and functions of the skeletal system
- Examine the parts and functions of the muscular system
- Discover ways to protect the bones and muscles

- 3. The Digestion and Elimination Cycle
  - Relate the parts and functions of the digestive system
  - Relate the parts and functions of the excretory system
  - Summarize ways to care for the digestive and excretory systems
- 4. Heart, Lungs, and Nerves Working Together
  - Describe how blood circulates through the body
  - Investigate how your nervous system controls body functions
  - Examine environmental factors that influence respiratory health

#### 7. Tobacco

- 1. The Dangers of Tobacco
  - Outline how tobacco damages your health
  - Illustrate how tobacco leads to addiction
- 2. Teen Tobacco Use
  - Describe influences that contribute to teens trying tobacco
  - Connect negative influences to teen tobacco use
- 3. Free From Tobacco
  - Simulate how to say no to tobacco
  - Outline methods of giving up tobacco use

# 8. Using Alcohol and Other Drugs

- 1. Alcohol: Dangerous Drinking
  - Relate how alcohol affects the body and the mind
  - Investigate why some teens use alcohol
- 2. The Dangers of Alcohol Use
  - Investigate the alcohol cycle of addiction
  - Establish the health risks of drinking during pregnancy
  - Outline alcohol-free strategies to reduce stress
- 3. The Look of Illegal Drug Use
  - Recognize the dangers of illegal drugs
  - Compare marijuana and inhalant risks
  - Classify the harmful effects of drug abuse
  - Correlate recovery and withdrawal
  - Summarize treatments for drug addicts

Pennwood Cyber Charter School Application

# **Health and Physical Education 7**

Appendix A.2.f. Health and Physical Education Course Guides



# **Health and Physical Education 7**

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

#### **Course Summary:**

The Health course will guide the student through material that will promote healthy, active lifestyles. Health topics include issues that are relevant to the age group, such as mental and emotional health, conflict resolution, and bullying. The student will also be immersed in the prevention and avoidance of drugs, alcohol, and tobacco. The student will receive the necessary strategies to help avoid the pitfalls of unhealthy and risky behaviors. The physical education portion of the course will offer great freedom as the student will be able to choose a physical education regimen that will fit the student's individual needs. The student will be given a choice of three paths that place emphasis on lifelong activities as well as current fitness trends. Physical education lessons are geared toward a "physically fit" lifestyle that will aid the student in the years to come and ensure a higher quality of life.

# **Course Outline**

#### **Health and Physical Education 7**

#### 1. Understanding Health and Wellness

- 1. Overall Health
  - Identify the three different aspects of health
  - Determine the link between health and wellness
  - Describe how the body and mind are connected
- 2. Taking Responsibility for Your Health
  - List and explain the three steps necessary for achieving health goals
  - Identify the seven health skills needed to ensure a healthy you
- 3. Factors That Affect Your Health
  - Explain why heredity is a health factor you cannot control
  - Describe two types of environmental health factors and explain the role each plays in your total health
- 4. Understanding Health Risks
  - Identify health risks
  - Describe health consequences of risks and risky behavior
  - Describe strategies you can use to evaluate health risks

#### 2. Food and Nutrition

1. Nutrients

- Define "nutrient" and identify the three classes of nutrients that supply your body with energy
- Describe how your body gets energy from the food you eat
- Describe the role of carbohydrates, proteins, and fats as nutrients
- Recognize sources of carbohydrates, proteins, and fats in your diet
- Learn how to select foods to create a healthy, balanced diet

# 2. Choosing Food Wisely

- Identify three main reasons why you eat
- Describe the different influences on choices of food
- Evaluate food choices using food labels
- Identify healthy food choices using the MyPlate plan

# 3. Planning Healthy Meals

- Explain how dietary guidelines can help you plan a healthy diet
- Utilize the MyPlate plan and Dietary Guidelines for Americans to plan healthy meals

# 4. Digestion

- Identify the three main functions of the digestive system
- Describe the process of digestion
- Identify digestive organs and their functions
- Describe how your body eliminates waste products

# 5. Healthy Body Image

- Examine how heredity, activity level, and body composition affect your weight
- Explain what body mass index (BMI) is
- Describe the benefits of having a positive body image

# 6. Maintaining a Healthy Weight

- State the benefits of maintaining a healthy weight
- Identify health problems related to being overweight and underweight
- Identify three common eating disorders
- Explain the dangers of eating disorders

#### 3. Mental and Emotional Health

# 1. Personality

- Identify the five traits that define personality
- Identify factors that affect how your personality develops
- Describe the stages of personality development

# 2. Self-Esteem

- Define self-esteem and compare the effects of high and low self-esteem on your health
- Explain how self-esteem develops and changes as you grow
- Identify ways to improve self-esteem
- Summarize how to achieve your potential through the hierarchy of needs
- Identify the qualities of a self-actualized person

#### 3. Emotions

- Differentiate between primary and learned emotions
- Understand the importance of being aware of your emotions
- Identify ways to cope with difficult emotions

#### 4. Stress

- Define stress and identify sources of stress
- Describe the body's reaction to stress
- Identify effective strategies to manage stress

#### 5. Mental Disorders

- Recognize symptoms of mental disorders
- Identify causes of mental disorders
- Identify different types of mental disorders

# 4. Resolving Conflicts and Preventing Violence

# 1. Conflict

- Define and explain the nature of conflict
- Identify causes of conflict
- Recognize the signs of conflict
- Describe different types of conflict

#### 2. Conflict Resolution

- Identify characteristics of healthy relationships
- Describe skills for resolving conflict
- Practice conflict resolution

#### 3. Violence

- Define violence and identify types of violence
- Identify causes and risk factors of violence
- Describe the cycle of violence in dating relationships
- Identify characteristics of gangs

#### 4. Abuse

- Define abuse
- Describe different types of abuse
- Recognize signs of abuse
- Recognize that abuse is never the fault of the victim

#### 5. Tobacco

# 1. Chemicals in Tobacco Products

- Identify dangerous substances in tobacco products
- Explain how nicotine affects the body
- Describe nicotine addiction

#### 2. The Respiratory System

- Explain the function of the respiratory system
- Describe the breathing process
- Trace the path of air through the respiratory system
- Identify problems of the respiratory system and ways to keep it healthy

# 3. Teens and Tobacco

- Identify factors that influence a teen's decision about tobacco use
- Describe different tobacco products
- Describe changes in tobacco use over the past few decades

# 4. Risks of Tobacco Use

- Describe long-term health risks of using tobacco products
- Identify the risks of exposure to secondhand smoke
- List ways to avoid exposure to secondhand smoke

# 5. Saying No to Tobacco

- Recognize the importance of refusal skills to avoid tobacco use
- Identify benefits of being tobacco free

Describe tips for quitting tobacco use

#### 6. Alcohol

- 1. Alcohol's Effects on the Body
  - Identify facts about alcohol and describe short-term effects of alcohol on the body
  - Define blood alcohol concentration (BAC) and identify factors that affect BAC
  - Identify life-threatening effects of alcohol

#### 2. The Nervous System

- Identify the functions of the nervous system
- Explain the structure and function of a neuron
- Differentiate between the central and peripheral nervous systems
- Identify problems of the nervous system and ways to keep your nervous system healthy

# 3. Teens and Alcohol

- Identify factors that influence teen drinking
- Explain the risks of underage drinking

# 4. Long-Term Risks of Alcohol

- Identify serious long-term health effects of alcohol abuse
- Describe the stages and treatment of alcoholism
- Identify how alcohol abuse affects others

# 5. Choosing Not to Drink

- Understand how refusal skills can help you stick to your decision not to drink
- Identify and practice refusal skills
- Describe benefits of avoiding situations where alcohol is present

# 7. Drugs

- 1. Legal and Illegal Drugs
  - Differentiate between legal and illegal drugs
  - Differentiate between drug abuse, drug misuse, and appropriate drug use
  - Describe different ways drugs affect your body
  - Identify risks of drug abuse

# 2. Commonly Abused Drugs

- Describe the effects of different classes of drugs on the body
- Identify classes of drugs of concern in recent years

# 3. Factors Affecting Drug Abuse

- Identify risk factors for drug abuse
- Identify protective factors that help you stay drug free

# 4. Choosing to Be Drug Free

- Recognize signs of drug abuse
- Identify treatment options for people who abuse drugs
- Describe steps you can take to stay drug free

Pennwood Cyber Charter School Application

# **Health and Physical Education 8**

Appendix A.2.f. Health and Physical Education Course Guides



# **Health and Physical Education 8**

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

# **Course Summary:**

The Health course will introduce the student to vital health concepts and reinforce health skills that promote healthy behaviors. The student will learn the functions and structures of various body systems as well as the care and prevention of disease to these systems. The student will learn about communicable diseases and how to prevent the spread of such diseases. The student will also be able to demonstrate the importance of proper nutrition by planning and analyzing meals and nutritional values. Proper actions in emergencies and safety procedures will also be included. The physical education portion of the course will offer great freedom as the student will be able to choose a physical education regimen that will fit the student's individual needs. The student will be given a choice of three paths that place emphasis on lifelong activities as well as current fitness trends. Physical education lessons are geared toward a "physically fit" lifestyle that will aid the student in the years to come and ensure a higher quality of life.

# **Course Outline**

#### **Health and Physical Education 8**

#### 1. Understanding Your Health

- 1. Factors Affecting Overall Health
  - Define health today
  - Identify and describe the three sides of the health triangle
  - Explain how habits affect wellness
- 2. Changes in the Teen Years
  - Describe physical changes that occur during the teen years
  - Describe the mental and emotional changes experienced during adolescence
  - Explain how change during adolescence may affect your relationships
  - Identify some healthy behaviors that contribute to emotional and mental health
- 3. How to Make Responsible Health Decisions
  - Recognize the importance of lifestyle factors in a person's health
  - Describe risk-reducing behaviors and habits to reduce risks in your life
  - Understand how to evaluate sources of health information

# 2. Mental and Emotional Health

- 1. Understanding Mental and Emotional Health
  - Describe characteristics of good mental and emotional health
  - Recognize factors that affect your self-esteem

Identify skills that help to build your self-esteem

#### 2. Emotions and Behavior

- Recognize common emotions
- Discover healthy ways to express emotions
- Identify how to manage anger in a healthful way

#### 3. How to Manage Stress

- Recognize the causes of stress
- Explain how your body responds to stress
- Describe habits for managing stress in your life

## 4. Dealing with Loss

- Understand the stages of reactions that are associated with the grieving process
- Describe strategies for dealing with personal loss
- Find out how to emotionally support someone through the grief process

#### 3. Mental and Emotional Problems

- 1. Mental and Emotional Health Disorders
  - Identify five types and signs of anxiety disorders
  - Discover the common causes of mental and emotional health disorders
  - Identify and describe two mood disorders
  - Describe three signs of clinical depression

#### 2. Suicide Prevention

- Recognize warning signs of teen suicide
- Describe the causes of teen suicide
- Understand how to communicate to help someone who may be suffering from a mental or emotional health problem
- 3. Help for Mental and Emotional Disorders
  - Recognize why you or someone you know may be avoiding getting help for a mental illness
  - Describe the kinds of therapies used to treat mental and emotional disorders
  - Identify professionals who help people with mental health problems

#### 4. Nutrition for Health

- 1. The Benefits of Nutrition
  - Describe the importance of nutrition on the body
  - Explain how your mood can affect the foods that you eat

#### 2. Essential Nutrients for Wellness

- Identify the six major categories of nutrients
- Describe three ways your body uses nutrients

## 3. Using Nutritional Guidelines

- Explain how to adequately use MyPlate as a guide for healthy eating
- Describe the recommendations for healthy eating provided by the Dietary Guidelines for Americans

## 4. Planning for Meals and Snacks

- Understand why breakfast is the most important meal of the day
- Identify meal planning tips
- Identify healthy ways to choose a snack

## 5. Your Body Image

- 1. Learning to Maintain a Healthy Weight
  - Understand the importance of a healthy body image
  - Describe how food and physical activity have a major impact on your weight
  - Identify three ways to maintain a healthy weight
- 2. Living with an Eating Disorder
  - Identify signs and symptoms of eating disorders
  - Describe the health risks associated with eating disorders
  - Identify where someone can get help for an eating disorder

#### 6. Your Body Systems

- 1. Human Skeletal System
  - Describe the functions of the skeletal system
  - Identify four types of joints located in the body
  - Describe problems that can occur within the skeletal system
  - Identify behaviors that can keep your skeletal system healthy
- 2. Human Muscular System
  - Describe the functions of the muscular system
  - Identify the differences between various muscle types
  - Identify behaviors that can keep your muscular system healthy
- 3. Human Circulatory System
  - Describe the process of circulation
  - Identify and explain the parts of the circulatory system
  - Identify behaviors that can keep your circulatory system healthy
- 4. Human Respiratory System
  - Describe how your body uses the air you breathe
  - Identify and explain the parts and functions of the respiratory system
  - Identify ways to maintain a healthy respiratory system
- 5. Human Nervous System
  - Describe the functions of the nervous system
  - Identify and explain the different parts of the nervous system
  - Identify ways to protect your nervous system from injury
- 6. The Human Digestive and Excretory Systems
  - Describe the process of excretion
  - Identify ways to prevent problems to the digestive and excretory systems
  - Identify behaviors for good digestive health
- 7. Human Endocrine System
  - Identify the main functions of the endocrine system
  - Describe the jobs done by the different endocrine glands
  - Explain disorders of the endocrine system
- 8. Human Reproductive System
  - Identify the parts of the male and female reproductive systems
  - Describe three functions of the female reproductive system
  - Identify problems that can be associated with the male and female reproductive systems
  - Identify ways to keep your reproductive system healthy

### 7. Infectious Diseases

1. Understanding Infectious Diseases

- List the causes of infectious diseases
- Differentiate how germs are spread
- 2. How Does the Body Fight Infectious Disease?
  - List the three lines of defense your body has against infectious disease
  - Identify how the immune system functions
  - Describe how antibodies defend against diseases
- 3. Common Infectious Diseases
  - Name four common infectious diseases
  - Discuss what causes colds and how to treat them
  - Describe what you can do to prevent infectious diseases

## 8. Safety and Emergencies

- 1. Being Safe at Home and School
  - Identify how to stay safe in the home and at school
  - Define the parts of an accident chain
  - Identify safe habits
- 2. Being Safe Outdoors and on the Road
  - Identify ways to avoid injuries in the water and outdoors
  - Define how to stay safe as a pedestrian
  - Differentiate safety and traffic rules for bicycles, skates, skateboards, and scooters
- 3. First Aid
  - Describe what are known as Universal Precautions
  - List the steps to take in an emergency
  - Organize your own first aid kit
- 4. Handling Common Emergencies
  - Explain the different types on common emergencies
  - Identify first-aid treatments for common emergencies
  - Understand when it is time to call for medical assistance
- 5. Medical and Life-Threatening Emergencies
  - Differentiate the different types of life-threatening emergencies
  - List the steps to perform rescue breathing
  - Describe the symptoms of shock
  - Recite how to help someone who is choking

Pennwood Cyber Charter School Application

## **Health, Fitness and Nutrition**



#### **Health, Fitness and Nutrition**

**Course Instructional Time: 170 hours** 

#### Instructional Activities:

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

## **Semester A Summary:**

This is the first of two courses that comprise Health, Fitness, and Nutrition. In this course, the student will study a variety of health-related topics and learn the benefits of fitness. The student will gain a new awareness of his own fitness level and nutritional needs. The student will also learn how to adopt long-term, healthy habits and lifestyle changes to improve and inspire his overall state of well being.

This course will also teach the student how fitness can influence one's self image and will help him to understand the value of respecting his own body. The student will explore the dangers of alcohol and drug use and develop social strategies to avoid peer pressure. The student will also examine such things as eating disorders, prevention of injury, and first aid.

## **Semester A Outline**

### 1. Health and Wellness

- Describe health, wellness, and fitness; identify the risk factors that may affect a person's well-being
- Identify health-related and skill-related factors that may affect fitness
- Recognize the importance of training principles and techniques
- Describe the anatomy of joints and ways to maintain healthy joints
- Describe flexibility and various ways to maintain and increase it

#### 2. Strengthen your Muscles

- Describe the components of the circulatory system and the benefits of exercise on the circulatory system
- Describe the respiratory system and actions that threaten the health of the respiratory system
- Identify the different types of muscles and muscle fibers
- Identify ways to improve muscular strength and endurance
- Describe the benefits of aerobic training

## 3. Final Exam

• Health, Fitness, and Nutrition Final Exam

#### **Semester B Summary:**

In the Health, Fitness, and Nutrition course, the student will study a variety of health-related topics and learn the benefits of fitness. The student will gain a new awareness of his own fitness level and nutritional needs. The student will also learn how to adopt long-term, healthy habits and lifestyle changes to improve and inspire his overall state of well

Appendices page 2309 Pennwood Cyber Charter School

being. This course will also teach the student how fitness can influence one's self image and will help him to understand the value of respecting his own body. The student will explore the dangers of alcohol and drug use and develop social strategies to avoid peer pressure. The student will also examine such things as eating disorders, prevention of injury, reproductive health, and first aid.

#### **Semester B Outline**

## 1. Building a Healthy Body

- Explain the role of fat in the body; describe the health hazards associated with excess body fat
- Recognize the role that good nutrition and proper hydration play in weight control and overall health
- Describe the dangers of poor eating habits; identify various aspects of eating disorders
- Describe stress management and the connection to stress-related health problems
- Identify the negative effects of habits such as alcohol, drugs, and tobacco

## 2. Developing an Exercise Plan

- Describe the treatment and prevention of common exercise injuries
- Recognize the importance of first aid in various situations
- Describe the proper attire and equipment for various exercise activities
- Explain the benefits of adherence to a regular exercise plan
- Discuss the options for an exercise location and ways to involve the entire family in a fitness plan

### 3. Reproductive Health

- Educate students about the human reproductive system
- Present abstinence as the best method of avoiding teen pregnancy
- Present abstinence as the best method in preventing infection
- Familiarize students with strategies for assertive communication
- Present family planning in terms of marriage

#### 4. Final Exam

• Health, Fitness, and Nutrition Final Exam

Pennwood Cyber Charter School Application

## **Personal Fitness**



#### **Personal Fitness**

**Course Instructional Time:** 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

#### **Course Summary:**

In this course, the student will study physical fitness and a variety of health-related topics. The student will gain an understanding of the proper ways to exercise and diet, and will learn how to assess his own fitness level. The student will learn what fitness can do and how to attain the highest possible fitness level.

#### **Course Outline:**

#### 1. Fitness Awareness and Understanding

1. The Importance of Fitness

Learn to identify and understand the five health-related factors of fitness Learn to identify and understand the six skill-related factors of fitness

2. Fitness Testing

Identify the factors to be considered before engaging in a physical fitness program Describe how the health-related components will increase by applying the principles you develop in your own exercise program

3. Components of Fitness

Learn the principles of overload, progression, and specificity Understand your working heart rate

4. Guidelines for the Exercise Session

Understand the importance of warming up and cooling down Plan your own exercise sessions, including warm-up and cool-down

5. Understanding How the Joints Move

Define flexibility

Describe the importance of flexibility to health and fitness

Explain how flexibility is developed

Describe how flexibility is increased through the application of general principles of training

6. Applying Fitness Principles to Flexibility

Define overload, specificity, and progression as they relate to flexibility

Give examples of various types of stretches

Explain the difference between dynamic and static stretches

## 7. Stretching Exercises

Describe which exercises increase range of motion in specific joints Provide criteria for correctly performing flexibility exercises

#### 2. Cardiovascular Fitness

#### 1. Anatomical Structure of the Heart and How It Works

Define cardiovascular fitness
Describe how the cardiovascular system works
Recognize the major structural features of the heart
Understand blood pressure

## 2. Respiratory System Functions

Describe the respiratory process and its relationship to fitness Identify the major structural features of the lungs Learn the benefits of aerobic exercise and determine your target heart rate

#### 3. Muscle Fibers

Learn to identify two types of muscle fibers

Describe the functions of the two types of muscle fibers

Identify the differences among skeletal, smooth, and cardiac muscles

## 4. Types of Muscles

There are no objectives for this lesson.

## 5. Developing Muscular Endurance

Learn the methods of developing cardiovascular fitness, muscular strength, and endurance Learn the effects of exercise on the muscular system Identify different types of aerobic exercises and their benefits

#### 6. Diseases Associated With Poor Aerobic Conditioning

Discuss the importance of attaining an optimal cardiovascular level Identify the benefits of muscular endurance
Name the diseases associated with poor aerobic conditioning

#### 7. Aerobic Training Benefits

Explain how aerobic training impacts the respiratory system Explain how aerobic training impacts the cardiovascular system Explain how aerobic training impacts the muscular system

### 8. Oxygen Transport

Describe systemic circulation and oxygen transport Identify blood vessels, arteries, veins, and capillaries Explain the difference between systemic and pulmonary circulation

#### 9. Body Fat and Obesity

Develop an understanding of body fat and related terms Discuss the benefits of low body fat percentage Identify the health hazards of high body fat percentage

#### 3. Nutrition

## 1. Understanding Nutrients

Identify the six major nutrients
Identify the best food sources for each one
Identify the basic food groups
Analyze your own eating habits to meet your goals for RDAs

Learn to select foods that will provide the optimal nutrition benefits

#### 2. Sports Nutrition Myths

Learn the facts about the most common myths about nutrition

Learn to identify the myths associated with sports drinks, protein supplements, and salt tablets

#### 3. Hydration

Discuss the importance of hydration and re-hydration Describe the hazards and effects of dehydration Learn to identify associated symptoms Discuss the negative side-effects of the use of diuretics

## 4. Weight Control

Discuss the causes of obesity and how it develops
Learn the terms related to body composition
Describe the guidelines for weight control and methods of determining your ideal body weight

#### 5. Fad Diets

Learn the importance of maintaining a well-balanced diet Recognize health risks as a result of fad dieting

#### 6. Anorexia Nervosa and Bulimia

Describe the hazards of eating disorders Discuss the psychological and physiological effects Identify the symptoms

#### 7. Stress

Discuss the body's reaction to stress and the three stages of stress Identify symptoms and prevention
Learn various methods of relieving and coping with stress

## 4. Designing Your Personal Exercise Program

## 1. Exercising Safely/Designing Your Exercise Program

Describe common exercises and injuries
Discuss how to prevent problems before they occur by avoiding certain exercises

### 2. Final Exam

There are no objectives for this lesson.



Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

#### **Course Summary:**

Welcome to Physical Education 1! Each week, the student will learn a new game or activity. There will be games and activities that may be played inside, while others will be better suited for outdoor play. The games and activities in this course are grouped in thematic units. In each lesson, the student will find a brief description of that week's game. Each week a new game will be added, but the previous lessons' games will still be listed for the student to see. In addition to the activities described in the lessons, students will also have the option of participating in yoga or an individual or team sport.

#### **Course Outline:**

## 1. Get Up and Move

- 1. Introduction to Physical Education 1
  - Learn about the three different options that Connections Academy students have to fulfill their Physical Education requirement
- 2. Ping-Pong Pass
  - Demonstrate motor skills needed for throwing and catching
  - Refine hand-eye coordination through process of throwing and catching
- 3. Limbo Lights
  - Play a limbo game without using a limbo stick
  - Demonstrate flexibility and balance through movement
- 4. Push-ups
  - Demonstrate how to do a basic push-up
  - Demonstrate how to do different variations of push-ups
  - Identify the different parts of the body that the different push-up variations target
- Side Straddle Hop
  - Demonstrate how to do a side straddle hop or jumping jack
- Musical Hoops
  - Demonstrate how to correctly use a hula hoop

Use a hula hoop as part of exercises to strengthen the oblique muscles

#### 7. Plyometrics

- Define plyometrics
- Participate in plyometric exercises
- 8. Marsupial Mania
  - Demonstrate locomotor patterns of jumping
  - Practice jumping distances

## 2. Making Healthy Choices

- 1. Nutrition: USDA's MyPlate
  - Identify the five food groups that make up USDA's MyPlate
  - Name specific foods and what food group they belong to
- 2. Nutrition: Choosing Healthy Food
  - Identify foods from the different food groups
  - Create a menu for a healthy, balanced dinner
- 3. Exercise
  - Define exercise
  - Explain the benefits of exercise on the heart and lungs
  - Measure the effects of exercise on the pulse rate
- 4. Personal Hygiene
  - Define personal hygiene and explain why it is important to overall health
  - Describe the proper hand washing technique

#### 3. Make Your Own Fun

- 1. Make Your Own Kite
  - Construct and fly two kites out of household materials
  - Demonstrate motor skills needed to fly a kite
- 2. Make Your Own Plisbee
  - Demonstrate manipulative skills used to throw and catch
  - Improve hand-eye coordination through throwing and catching accurately
- 3. Make Your Own Catcher's Cup
  - Demonstrate accurate hand-eye coordination and spatial relationships to be able to catch a ball on a string

#### 4. Games from Around the World

- 1. Brinca (Spain)
  - Demonstrate balance and coordination through a series of hops, steps, and jumps
- 2. Chenco (Southeast Native American tribes)
  - Demonstrate motor skills needed for throwing
  - Utilize hand-eye coordination and depth perception to participate in an activity from Native American culture
- 3. Japanese Horseshoes (Japan)
  - Demonstrate accurate throwing techniques to knock over a target
  - Improve throwing accuracy through practice
- Lame Hen (China)
  - Demonstrate motor skills needed to hop on one foot

- Balance on one leg long enough to pick up items from the ground
- 5. Lompat Tali (Indonesia)
  - Demonstrate locomotor skills necessary to jump rope
  - Participate in fundamental movements such as jumping and hopping
- 6. Down, Down, Down (Australia)
  - Demonstrate proficiency in throwing and catching a ball
  - Utilize depth perception to be able to catch a ball

## 5. Show Your Strength

- 1. Bowling for Bottles
  - Demonstrate hand-eye coordination necessary to knock over a target with a ball
- 2. Give Yourself a Hand
  - Improve balance and coordination
  - Use motor skills necessary to jump from one space to another
- 3. Soaring Slippers
  - Demonstrate motor skills needed to throw accurately at a target
  - Utilize hand-eye coordination necessary for throwing
- 4. Ping Pong Pockets
  - Demonstrate throwing accuracy by hitting a specific target
- 5. Sponge Toss
  - Demonstrate ability to throw and catch
  - Be able to throw objects into a specific container



Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

#### **Course Summary:**

Welcome to Physical Education 2! Each week, the student will learn a new game or activity. There will be games and activities that may be played inside, while others will be better suited for outdoor play. The games and activities in this course are grouped in thematic units. In each lesson, the student will find a brief description of that week's game. Each week a new game will be added, but the previous lessons' games will still be listed for the student to see. In addition to the activities described in the lessons, students will also have the option of participating in yoga or an individual or team sport.

### **Course Outline:**

## 1. Get Up and Move

- 1. Introduction to Physical Education 2
  - Learn about the three different options that Connections Academy students have to fulfill their Physical Education requirement
- 2. Space Awareness: Balance
  - Demonstrate an understanding of stationary balance and moving balance
- 3. Tightrope Walker
  - Demonstrate how to maintain balance while walking a tightrope
- 4. Body Toss
  - Demonstrate how to properly throw underhand
  - Demonstrate how to aim for and successfully hit a target with an underhand throw
- 5. Side Straddle Hop
  - Demonstrate how to do a side straddle hop or jumping jack
- 6. Scarf Juggling
  - Demonstrate juggling using three scarves
- 7. Jumping Jacks to the Music
  - Demonstrate stamina and endurance by performing jumping jacks to music
- 8. Where Are You Going?
  - Demonstrate flexibility and gross motor control by moving the body in various directions

## 2. Making Healthy Choices

- 1. Nutrition: MyPlate
  - Identify the five food groups that make up MyPlate
  - Name specific foods and what food group they belong to
- 2. Nutrition: Choosing Healthy Food
  - Identify foods from the different food groups
  - Create a menu for a healthy, balanced dinner
- 3. Exercise
  - Define exercise
  - Explain the benefits of exercise on the heart and lungs
  - Measure the effects of exercise on the pulse rate
- 4. Personal Hygiene
  - Define personal hygiene and explain why it is important to overall health
  - Describe the proper hand washing technique

#### 3. Games You Can Make!

- 1. Make Your Own Cheerleader Pompoms
  - Demonstrate locomotor skills with basic cheerleading moves
- 2. Make Your Own Coffee Can Stilts
  - Demonstrate gross motor control and balance while walking on tin can stilts
- 3. Make Your Own Swirling Dancing Ribbons
  - Demonstrate motor control and body awareness with rhythmic gymnastics
- 4. Ab Wheelie
  - Demonstrate coordination and core strength
- 5. Don't Fall in the Lava
  - Demonstrate locomotor skills and coordination
- 6. Beach Ball Lift
  - Demonstrate strength in the legs and abdominal muscles

#### 4. Games from Around the World

- 1. Greece: The Snail Game
  - Demonstrate balance and coordination through a series of hops, steps, and jumps

Pennwood Cyber Charter School

- 2. Romania: Rings Game
  - Demonstrate hand-eye coordination
- 3. Germany: Hit the Pot and Sardines
  - Demonstrate interpersonal cooperation and team spirit
- 4. China: Hopping Chicken and Jump Over the Band
  - Demonstrate locomotor skills and coordination
- 5. Colombia: Oba
  - Demonstrate hand-eye coordination
- 6. Indonesia: Jumping Rope
  - Demonstrate coordination and physical perseverance

## 5. How Strong Are You?

- 1. Deck of Cards
  - Demonstrate stamina and endurance through the performance of various exercises
- 2. Jump Start Your Heart
  - Demonstrate an understanding of heart healthy activities
- 3. Get Around This!
  - Demonstrate physical stamina by hopping, jumping, and running
- 4. Get Up and Dance!
  - Demonstrate stamina, flexibility, and endurance by moving and dancing to music
- 5. Let's Build Your Muscles!
  - Demonstrate strength and endurance through strength training



Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

## **Course Summary:**

Our third grade students are expected to understand and demonstrate clearly-defined combinations of movements. Each week the student will learn one or more new activities. In addition, the student will learn the importance of nutrition as it relates to health and physical fitness. The student will learn life skills throughout the curriculum. In each lesson, the student will find a brief description of that week's activity. Each week a new activity will be added, but the previous activities can always be reviewed.

#### **Course Outline:**

## 1. The Presidential Fitness Challenge: Introduction

- 1. About the President's Challenge
  - Learn about the Presidential fitness programs
- 2. Powerful Pacer and Mighty Mile
  - Learn the proper way to do the mile run/walk
  - Learn the proper way to complete the pacer test.
- Perfect Push-ups
  - Learn the proper way to do push-ups
- 4. Terrific Trunk Lift and Stretchy Sit-and-Reach
  - Learn the proper way to do the Stretchy Sit-and-Reach
  - Learn the proper way to do the Terrific Trunk Lift

## 2. Moving, Stretching, and Strengthening

- Jumping and Leaping
  - Jump as high as you can
  - Jump as far as you can
  - Leap as far as you can
- 2. Move It!
  - Move quickly
  - Change direction quickly
- 3. Did You Catch That?
  - Catch a ball using two hands

- 4. Which Way Am I Going?
  - Perform jumps in various directions
  - Run in various directions
- 5. I Am Strong and Sturdy
  - Balance using four supports
  - Balance using three supports
  - Balance using two supports
- 6. Upper Body Strength
  - Use upper body strength to perform various activities
- 7. Twist and Turn
  - Perform skills that cross the mid-line of the body
  - Twist the torso as far as possible
- 8. Bending and Stretching
  - Demonstrate ankle, knee, and hip flexibility
- 9. Jumping Beans
  - Jump while keeping your balance
  - Jump rope several times consecutively
- 10. Jumping Beans II
  - Jump in a diagonal direction with control
  - Jump as quickly as possible in various directions
- 11. Lower Body Strength
  - Demonstrate lower body strength

## 3. Developing a Healthy Exercise Routine

- 1. A Healthy Exercise Routine
  - Learn the principles of exercise
  - Learn the components of an exercise routine
  - Learn how to properly warm up and cool down
- 2. Flexibility Training
  - Learn about the importance of flexibility
  - Incorporate stretching into a daily exercise routine
- 3. Aerobic Training
  - Learn about the importance of aerobic activity
  - Incorporate aerobic activity into a daily exercise routine
- 4. Strength and Endurance Training
  - Learn the importance of muscular strength
  - Learn the importance of muscular endurance
  - Incorporate strength and endurance into a daily exercise routine

## 4. Your Body and Exercise

- 1. Body Composition
  - Learn how to calculate Body Mass Index
  - Learn about different body types
- 2. Nutrition and Healthy Eating
  - Learn about essential nutrients
  - Learn why eating a healthy diet is important

- 3. The Importance of Fluids
  - Learn why fluids are important during exercise
  - Learn about homeostasis
- 4. Injuries
  - Learn how to prevent exercise-related injuries
  - Learn how to care for exercise-related injuries

## 5. The Presidential Fitness Challenge

- 1. Endurance Run/Walk and Shuttle Run
  - Complete the endurance run/walk
  - Complete the shuttle run
- 2. Pull-ups or Push-ups and Curl-ups
  - Complete as many pull-ups or push-ups as you can in one minute
  - Complete as many curl-ups as you can in one minute
- 3. V-Sit and Reach
  - Perform the v-sit and reach exercise

#### 6. Games Around the World

- 1. Asia
  - Participate in games played by children in Asia
  - Demonstrate locomotor skills necessary for running and jumping
- 2. Europe
  - Participate in games that are played by children in Europe
  - Demonstrate locomotor skills necessary for running and jumping
- 3. Africa
  - Learn about games that are played in Africa
  - Demonstrate locomotor skills necessary for running and jumping
- 4. Australia
  - Learn about games that are played in Australia
  - Demonstrate locomotor skills necessary to run



Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

## **Course Summary:**

At the fourth grade level, student's hand-eye coordination has improved, allowing for advanced instruction in individual and partner activities. Fourth grade students are able to understand rules and the importance of following them. The development of a healthy lifestyle requires that the student acquire knowledge to make positive decisions about exercise, and nutrition. The student's participation and progress will be monitored through the Physical Activity Log and periodic performance tests.

The President's Council on Physical Fitness and Sports Tests will be part of his/her curriculum. Depending on the program chosen, the student will have the opportunity to record his results on a periodic basis, and receive the appropriate award depending on the performance level.

## **Course Outline:**

### 1. The Presidential Fitness Challenge: Introduction

- 1. About the Presidential Fitness Challenge
  - Learn about the Presidential Fitness Challenge programs, which include the Presidential Active Lifestyle program and the Presidential Physical Fitness program
- 2. Powerful Pacer and Mighty Mile
  - Learn the proper way to do the mile run/walk
  - Learn the proper way to complete the pacer test
  - Demonstrate accurate completion of the mile run/walk
  - Demonstrate accurate completion of the pacer test
- 3. Perfect Push-ups and Curl-ups
  - Learn the proper way to do push-ups
  - Demonstrate proper technique while doing push-ups
  - Learn the proper way to do curl-ups
  - Demonstrate proper technique while doing curl-ups
- 4. Terrific Trunk Lift and Stretchy Sit-and-Reach
  - Learn the proper way to do the Stretchy Sit-and-Reach
  - Learn the proper way to do the Terrific Trunk Lift
- 2. Learning Locomotor Skills

#### 1. Jumping and Leaping

- Demonstrate the locomotor skills necessary to participate in a variety of jumping routines
- Learn the fundamentals of jumping and how it can help to improve overall physical fitness

#### 2. Move It!

- Demonstrate your speed and quickness through a series of movement drills
- Practice the shuttle run, a part of the Presidential Physical Fitness Program

#### 3. Did You Catch That?

- Demonstrate locomotor skills necessary to catch a ball
- Demonstrate locomotor skills necessary to throw a ball to another person
- Improve hand-eye coordination and depth perception by catching a ball thrown by another person

## 4. Which Way Am I Going?

- Develop an understanding of the physical fitness concept of agility and demonstrate your agility through a series of exercise drills
- Demonstrate the locomotor skills necessary to run and stop quickly

#### 5. I Am Strong and Sturdy

- Demonstrate appropriate balancing technique by participating in a series of balancing exercises
- Demonstrate upper body strength necessary to complete push-ups

## 6. Upper Body Strength

- Demonstrate the ability to utilize upper body strength to participate in various exercises
- Improve upper body strength by performing exercises that target the upper body muscles

#### 7. Twist and Turn

- Demonstrate flexibility through a series of stretching exercises
- Increase flexibility in the upper body and abdomen by performing various twisting exercises

## 8. Bending and Stretching

- Demonstrate flexibility through a series of stretching exercises
- Increase flexibility by performing various stretching exercises

## 9. Jumping Beans

- Demonstrate the ability to jump while maintaining balance in order to participate in jumping rope
- Demonstrate jumping techniques

## 10. Jumping Beans II

Demonstrate balance and coordination necessary to participate in a variety of jumping routines

## 11. Lower Body Strength

- Demonstrate lower body strength by participating in a variety of exercises
- Improve lower body strength by performing exercises that target those muscles

## 3. Developing A Healthy Exercise Routine

## 1. A Healthy Exercise Routine

- Identify the four principles of exercise
- Identify the components of an exercise routine
- Demonstrate how to properly warm-up and cool-down

## 2. Flexibility Training

- Learn about the importance of flexibility and its overall health benefits
- Demonstrate a variety of stretching techniques in order to improve flexibility
- Incorporate stretching into your daily exercise routine

#### 3. Aerobic Training

- Learn the principles and importance of aerobic activity
- Demonstrate aerobic activity and incorporate it into a daily exercise routine

## 4. Strength and Endurance Training

- Learn the importance of muscular strength
- Learn the importance of muscular endurance
- Incorporate strength and endurance exercises into a daily exercise routine

## 4. Your Body and Exercise

#### 1. Body Composition

- Learn about different body types and the characteristics of each
- Identify the three components of body composition
- Calculate your Body Mass Index using a BMI Calculator

## 2. Nutrition & Healthy Eating

- Identify the five food groups that make up MyPlate
- Explain why eating a healthy diet is important to overall wellness
- Name specific foods and what food group they belong to

## 3. The Importance of Fluids

- Define homeostasis and explain the role it plays in body system regulation
- Explain why replacing fluids is important during exercise

## 4. Injuries

- Learn how to prevent exercise-related injuries
- Learn how to care for exercise-related injuries

## 5. The Presidential Fitness Challenge

#### 1. Endurance Run/Walk and Shuttle Run

- Participate in The Presidential Physical Fitness Challenge
- Complete the endurance run/walk
- Complete the shuttle run

#### 2. Pull-ups or Push-ups and Curl-ups

- Participate in The Presidential Physical Fitness Challenge
- Complete pull-ups or push-ups
- Complete curl-ups

## 3. V-Sit and Reach

- Participate in The Presidential Physical Fitness Challenge
- Complete the v-sit and reach

### 6. Games Around The World

#### 1. Asia

- Participate in games that are played by children in Asia
- Demonstrate locomotor skills necessary for running and jumping

#### 2. Europe

- Participate in games that are played by children in Europe
- Demonstrate locomotor skills necessary for running and jumping
- Demonstrate hand-eye coordination necessary to catch a ball with a cup

## 3. Australia

- Participate in games that are played by children in Australia
- Demonstrate hand-eye coordination necessary to throw and catch a ball

Demonstrate locomotor skills necessary to run

## 4. Africa

- Participate in games that are played by children in Ghana
- Demonstrate locomotor skills necessary for running and jumping



Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

#### **Course Summary:**

At the fifth grade level, students understand the concept of fair play and begin to recognize the varying fitness levels within the appropriate age standards. Playing by the rules and respecting self and others are emphasized as students participate in cooperative physical education activities. Students see how levels of physical activity and food intake are related to a healthy productive life-style.

The President's Council on Physical Fitness and Sports Tests will be part of his/her curriculum. Depending on the program chosen, the student will have the opportunity to record his results on a periodic basis, and receive the appropriate award depending on the performance level.

#### **Course Outline:**

#### 1. The Presidential Fitness Challenge: Introduction

- 1. About the Presidential Fitness Challenge
  - Learn about the Presidential Fitness Challenge programs, which include the Presidential Active Lifestyle program and the Presidential Physical Fitness program
- 2. Powerful Pacer and Mighty Mile
  - Learn the proper way to do the mile run/walk
  - Learn the proper way to complete the pacer test
  - Demonstrate accurate completion of the mile run/walk
  - Demonstrate accurate completion of the pacer test
- 3. Perfect Push-ups and Curl-ups
  - Learn the proper way to do push-ups
  - Demonstrate proper technique while doing push-ups
  - Learn the proper way to do curl-ups
  - Demonstrate proper technique while doing curl-ups
- 4. Terrific Trunk Lift and Stretchy Sit-and-Reach
  - Learn the proper way to do the Stretchy Sit-and-Reach
  - Learn the proper way to do the Terrific Trunk Lift

## 2. Learning Locomotor Skills

1. Steal the Ball

- Develop locomotor skills of running, and dribbling a ball with your feet
- 2. Marathon Walk/Run
  - Develop the locomotor skills of walking and running
- 3. Up and Down the Step Aerobics
  - Develop and demonstrate coordination
- 4. Let's Get Jumping
  - Develop and demonstrate the locomotor skill of jumping
- 5. Let's Have a Ball
  - Develop the locomotor skills of throwing and catching a ball
  - Develop eye-hand coordination skills
- 6. Throw and Catch
  - Develop accurate throwing, catching, visual tracking, and dexterity
- 7. You Can Build a Strong Upper Body
  - Develop knowledge of exercises that strengthen the upper body
- 8. Get Flexible
  - Develop flexibility by performing bending and stretching exercises
- 9. Strong Legs Will Take You Far
  - Develop strength in the lower body through interval training
- 10. Core Strength: Twisting and Turning
  - Develop core strength through the use of twisting and turning skills
- 11. Fitness Around the House
  - Develop fitness skills by performing exercises that address different components of fitness

## 3. Developing a Healthy Exercise Routine

- 1. A Healthy Exercise Routine
  - Identify the four principles of exercise
  - Identify the components of an exercise routine
  - Demonstrate how to properly warm up and cool down
- 2. Flexibility Training
  - Demonstrate an understanding of the importance of flexibility and its overall health benefits
  - Demonstrate a variety of stretching techniques in order to improve flexibility
  - Incorporate stretching into your daily exercise routine
- 3. Aerobic Training
  - Demonstrate an understanding of the importance of aerobic activity
  - Demonstrate an understanding of aerobic activities and include them in a daily exercise routine
- 4. Training for Strength and Endurance
  - Demonstrate an understanding of the importance of muscular strength
  - Demonstrate an understanding of the importance of muscular endurance
  - Incorporate strength and endurance exercises into a daily exercise routine

## 4. Your Body and Exercise

- 1. Body Composition
  - Learn about different body types and the characteristics of each
  - Identify the three components of body composition
  - Calculate your Body Mass Index using a BMI Calculator

#### 2. Nutrition & Healthy Eating

- Identify the five food groups that make up MyPlate
- Explain why eating a healthy diet is important to overall wellness
- Name specific foods and what food group they belong to

### 3. The Importance of Fluids

- Define homeostasis and explain the role it plays in body system regulation
- Explain why replacing fluids is important during exercise

## 4. Injuries

- Learn how to prevent exercise-related injuries
- Learn how to care for exercise-related injuries

## 5. The Presidential Fitness Challenge

- 1. Endurance Run/Walk and Shuttle Run
  - Participate in The Presidential Physical Fitness Challenge
  - Complete the endurance run/walk
  - Complete the shuttle run

## 2. Pull-ups or Push-ups and Curl-ups

- Participate in The Presidential Physical Fitness Challenge
- Complete pull-ups or push-ups
- Complete curl-ups

#### 3. V-Sit and Reach

- Participate in The Presidential Physical Fitness Challenge
- Complete the v-sit and reach

#### 6. Games Around The World

#### 1. Asia

- Participate in games that are played by children in Asia
- Demonstrate locomotor skills necessary for running and jumping

#### 2. Europe

- Participate in games that are played by children in Europe
- Demonstrate locomotor skills necessary for running and jumping
- Demonstrate hand-eye coordination necessary to catch a ball with a cup

#### 3. Australia

- Participate in games that are played by children in Australia
- Demonstrate hand-eye coordination necessary to throw and catch a ball
- Demonstrate locomotor skills necessary to run

#### 4. Africa

- Participate in games that are played by children in Ghana
- Demonstrate locomotor skills necessary for running and jumping



Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

#### **Course Summary:**

In this course, physical education encourages students to develop their fine motor skills, movement, and confidence to enjoy healthy physical activity regularly. A combination of interactive and hands-on activities teaches students essential skills. Students learn how to respect themselves and others while playing.

## **Course Outline:**

## 1. Physically Active Lifestyle

- 1. Physical Activities
  - Select and demonstrate activities that are classified as physical activity or exercise
- 2. Benefits of Physical Activity
  - Recognize that exercise benefits the body and the brain
- 3. Not Being Active
  - Identify disadvantages of not being physically active
- 4. Being Active Outside of School
  - Engage in at least one physical activity outside of school
  - Create a book of physical activities
- 5. Feelings and Physical Activity
  - Identify the emotional benefits to your brain from participating in physical activities
- 6. Enjoyable Physical Activities
  - Identify one physical activity that is enjoyable and state why it is fun

#### 2. Introduction to Common Movements

- 1. Moving Forward, Sideways, and Backward
  - Show how your body can move forward, backward and sideways
  - Explain why it is important to understand direction
- 2. Playing Ball
  - Demonstrate kicking, throwing, catching, and striking a ball
  - Describe how different actions used with balls produce various results
- 3. Stretching

- Show how your body can stretch, bend, swing, twist
- Explain why it is important to stretch before exercising
- 4. Determining Direction
  - Distinguish between directional relationships with an object and your body
- 5. Balancing and Body Parts
  - Demonstrate balancing while bearing weight on both feet, one foot, and on hands and knees
- 6. Moving to a Rhythm
  - Experiment with clapping, tapping, and moving to a steady beat

## 3. Let's Move

- 1. Bending, Pushing, Pulling, and Squatting
  - Identify and perform squatting, bending, pulling, and pushing
  - Describe the difference between squatting, bending, pulling, and pushing
- 2. Let's Travel
  - Differentiate between hopping, skipping, jumping, and running
  - Perform a hop, skip, jump, and run
- 3. What Body Parts Can You Name?
  - Label the different parts of the body used in physical activity
  - Identify various body parts
- 4. My Space, Our Space
  - Determine the difference between personal and general space
  - Perform movements using both personal and general space
- 5. Are You Fast or Slow?
  - Identify fast and slow movements
  - Explain how fast and slow movements look and feel different
  - Demonstrate the difference between slow and fast movements while traveling
- 6. Twist and Bend your Body
  - Demonstrate head flexion, head extension, and head rotation

#### 4. Effects of Exercise

- 1. Do You Notice a Change?
  - Explain that fast heart rate, sweat, and heavy breathing accompany exercise
  - Discuss why your heart rate increases, breathing deepens, and sweating occurs during exercise
- 2. Building Muscle Strength
  - Describe muscles
  - Demonstrate the ability to lift and support body weight
- 3. The Lungs
  - Identify where the lungs are located
  - Describe what lungs help you do
- 4. Importance of Sleep
  - Explain the importance of rest and sleep for the body
- 5. Flexibility
  - Participate in exercises that increase flexibility in the shoulders, legs, and trunk
  - Describe and select a stretching activity that provides enjoyment
- 6. Daily Physical Activity

- Identify the benefits that occur when involved in daily physical activity
- Develop and track a physical activity goal

## 5. Responsibility, Respect, and Enjoyment

- 1. Importance of Following Rules
  - State why it is important to follow rules when participating in physical activity
  - Illustrate the importance of following rules and consequences of not following rules
- 2. Dressing for Physical Activity
  - Identify appropriate clothing to wear when exercising
  - Explain how proper clothing and shoes help prevent injury
- 3. Staying Safe in the Water
  - Explain basic water safety rules
- 4. Using Equipment
  - Discuss the proper use of sporting equipment
- 5. Emergencies
  - Discuss appropriate reactions during emergencies in physical activities
- 6. Working Together
  - Explain the benefits of working together in physical activity
- 7. Positive Feelings During Physical Activity
  - Identify specific positive feelings associated with participating in physical activity
- 8. Try a New Sport or Activity
  - Summarize why it is important to try a new sport or activity
  - Explain how physical activity provides the opportunity for social interaction



#### **Physical Education**

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

#### **Course Summary:**

In this course, the student will use previously acquired skills in a wide range of elective activities. The course places priority on self-motivated physical activities that the student can participate in now and later in life, and incorporates skill competencies, written assignments, and class evaluations into some of the units. The student will be expected to show proficiency in the activities that are important for his personal development at the appropriate age. The student's physical fitness level will be assessed and recorded. As an online learner, the student will utilize relevant Web sites and streaming videos provided in the lessons.

#### **Course Outline:**

#### 1. Fitness

- Stretching Lesson
  - Focus Quiz: There are no objectives for this lesson
- 2. Cardiovascular Training
  - Define and explore methods of cardiovascular exercise
  - Distinguish between high intensity and low intensity cardiovascular exercise
  - Explore the relationship between the heart rate and effective cardiovascular exercise
- 3. Physical Fitness Testing
  - Identify the areas of physical fitness measured by the Presidential Physical Fitness Test
  - Participate in the Presidential Physical Fitness Test program
  - Assess your strengths and weaknesses with regard to physical fitness
- 4. Weight Training
  - Identify the areas of physical fitness measured by the Presidential Physical Fitness Test
  - Participate in the Presidential Physical Fitness Test program
  - Assess your strengths and weaknesses with regard to physical fitness

#### 2. Team Sports

- 1. Soccer Skill Progression
  - Focus Quiz: There are no objectives for this lesson

- 2. Soccer Rules and Positions
  - Identify common rules and regulations of soccer
  - Examine common strategies used by soccer players and teams
- 3. Basketball Skills Progression
  - Focus Quiz: There are no objectives for this lesson
- 4. Basketball Rules, Positions, and Current Events
  - Identify common rules and regulations of basketball
  - Examine common strategies used by basketball players and teams
- 5. Baseball and Softball Skills Progression
  - Focus Quiz: There are no objectives for this lesson
- 6. Baseball and Softball Rules and History
  - Identify common rules and regulations of baseball and softball
  - Examine common strategies used by baseball and softball players and teams
- 7. Volleyball Skills Progression
  - Focus Quiz: There are no objectives for this lesson
- 8. Volleyball Rules, Rotation, and Scoring
  - Identify the rules and regulations of volleyball
  - Examine common strategies used by volleyball players and teams

#### 3. Individual Sports

- 1. Golf Skills
  - Introduction: There are no objectives for this lesson
- 2. Golf Rules and Scoring
  - Identify common rules, regulations, and scoring techniques used when playing golf
  - Examine common strategies used by golf players
  - Investigate the workings and personalities of the Professional Golfers Association
- 3. Tennis Skills and Rules
  - Introduction: There are no objectives for this lesson
- 4. Lifelong Recreation Activities
  - Introduction: There are no objectives for this lesson

#### 4. Final Exam

- 1. Final Exam
  - There are no objectives for this lesson.

## APPENDIX A CURRICULUM

A.3 ELECTIVES K - 12 AND OTHER CLASSES

This document is part of Appendix A: Curriculum.

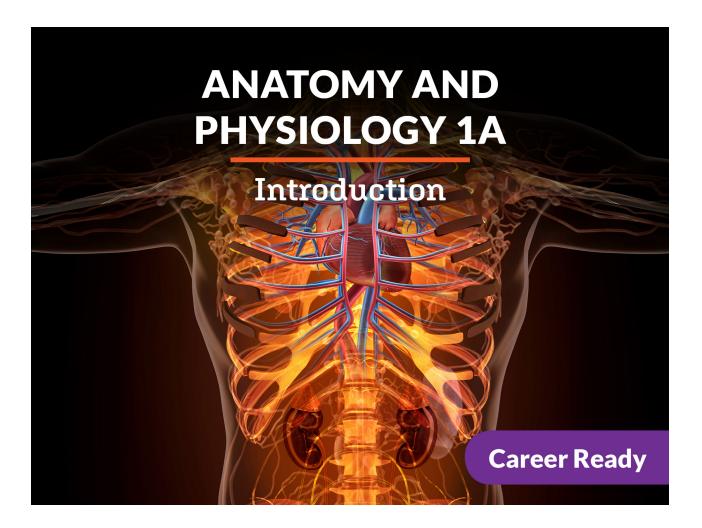
It includes alignment documents for electives and other classes for students in Kindergarten through Grade 12.

- Anatomy and Physiology 1
- Animation
- Art History
- Art in World Cultures
- Astronomy 1
- Career Planning and Skill Development
- Careers in Criminal Justice
- College Prep with ACT
- College Prep with SAT
- Concepts of Engineering and Technology
- Cosmetology 1
- Cosmetology 2
- Culinary Arts
- Digital Photography 1
- Driver's Education
- Early Childhood Education
- Educational Technology and Online Learning K
- Educational Technology and Online Learning 1
- Educational Technology and Online Learning 2

- Educational Technology and Online Learning 3
- Educational Technology and Online Learning 4
- Educational Technology and Online Learning 5
- Educational Technology and Online Learning 6
- Educational Technology and Online Learning 7
- Educational Technology and Online Learning 8
- Freshman Success
- Health Science 1
- Health Science 2
- Health Science Public Health
- Home Life
- Introduction to Computer Applications
- Introduction to Drawing
- Introduction to Graphic Design
- Medical Terminology 1
- Senior Success
- Sports Management



#### What you will learn in this course



#### **Anatomy and Physiology 1a: Introduction**

Whether you plan on pursuing a career in health sciences or simply looking to gain an understanding of how the human body works, you'll first need to understand the relationship between anatomy and physiology. Learn how to read your body's story through understanding cell structure and their processes, and discover the functions and purposes of the skeletal, muscular, nervous, and cardiovascular systems, as well as diseases that affect those systems.

#### **Unit 1: Human Body Organization**

While Anatomy and Physiology courses are required for students beginning their journeys to a career in a health science, they can also be of great value to others who are simply wanting to improve their own health and wellbeing. Just as it's easier to navigate a foreign country if you understand the language spoken, it's easier to navigate the human body if you understand the terminology related to the forms and functions of this fascinating area of study. If you're lost in

Appendices page 2345 Pennwood Cyber Charter School

Italy, hopefully you have a translation app. If you're lost and trying to figure out how one symptom might be a clue to a larger problem in a patient, this material will help you navigate your way through body systems.

#### What will you learn in this unit?

- Define and discuss the terms anatomy and physiology and their relationship to one another
- Describe the levels of organization of the human body from simple to complex
- Define and describe the anatomical positions and directional terms used in human anatomy
- Locate and describe the main regions, sections, and cavities of the body

## **UNIT 1** Assignments

	1
Assignment	Туре
Unit 1 Critical Thinking Questions	Homework
Unit 1 Lab	Homework
Unit 1 Activity	Homework
Unit 1 Discussion 1	Discussion
Unit 1 Discussion 2	Discussion
Unit 1 Quiz	Quiz

#### Unit 2: Chemistry of the Body

Remember how we talked about one cell being smaller than a period? It's mind blowing to think that something so small has so much control over all of our body systems. There are over 200 different types of cells in the body that make up a total of 100 TRILLION cells in one person. Think about it for a minute: that number is the number 1 followed by 14 zeroes!

Let's take a look at how cells are designed to make sure the human body stays healthy and balanced. Understanding cell design and reproduction is key to understanding how each body system works and how they interact to sustain life.

- Summarize the relationships among homeostasis, control systems, and feedback loops
- Explain the structure and function of typical cells

- Explain mitosis and meiosis: their similarities and differences
- Describe and discuss how damage to one type of cell and/or tissue may impact the function of other cells and tissues

UNIT 2 Assignments	
Assignment	Туре
Unit 2 Critical Thinking Questions	Homework
Unit 2 Lab	Homework
Unit 2 Activity	Homework
Unit 2 Discussion 1	Discussion
Unit 2 Discussion 2	Discussion
Unit 2 Quiz	Quiz

#### **Unit 3: The Skeletal System**

Can you image what it would be like if you didn't have any bones and were only made up of muscle and skin? You wouldn't be able to walk very well, type on the keyboard or, certainly, be able to dance! There are 206 bones in the adult human skeleton. When we are born, we have more than 250 bones in our bodies, and as we grow and develop, some of the smaller bones fuse together to form stronger, longer and less pliable bone. The skeleton is not only what determines the shape and size of an individual, but it allows us to walk upright and perform the activities of daily life.

#### What will you learn in this unit?

- Describe the structure and function of bones
- Identify the different types of bones
- Differentiate between the axial and appendicular skeleton
- Classify joints and their specific functions
- Summarize common diseases and disorders of the skeletal system

## **UNIT 3** Assignments

Assignment	Туре
Unit 3 Critical Thinking Questions	Homework
Unit 3 Lab	Homework
Unit 3 Activity	Homework
Unit 3 Discussion 1	Discussion
Unit 3 Discussion 2	Discussion
Unit 3 Quiz	Quiz

## **Unit 4: The Muscular System**

Sit perfectly still while you look at your computer screen. You might think that none of your muscles are moving, but they are. The diaphragm, the sheet of muscle that rests under your lungs, is contracting and relaxing to facilitate your breathing when you're at rest or in motion. Muscles also perform other functions that you may not have considered; not only does the muscular system move your limbs, it also interacts with other body systems to support vital movements around your body. Let's see what muscles do for you.

#### What will you learn in this unit?

- Explain the structure and function of muscles and muscle tissue
- Describe the sliding filament theory
- Interpret the names of various muscles based on Latin terms
- Distinguish between a muscle strain and other muscle injuries

Туре
Homework
Homework
Homework
Discussion
Discussion

Appendices page 2348 Pennwood Cyber Charter School

Unit 4 Quiz Quiz

#### **Anatomy and Physiology 1a Midterm Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the first four units in this course (Note: You will be able to open this exam only one time.)

MIDTERM Assignments	
Assignment	Туре
Midterm Exam	Exam
Midterm Discussion	Discussion

#### **Unit 5: The Nervous System**

Snap your fingers. Can you imagine that in the time it took you to snap, a nerve impulse could travel the length of a football field? Now, think about an amazingly fast relay race. Your nervous system is like a relay: the baton gets passed from one group of cells to the next to deliver a message with lightning speed. It's not one individual that carries the baton the length of the football field; it's multiple people passing the baton across the length of the impulse to make the movement or sensation happen. Once you examine all the individual parts of the nervous system and how they work together, you'll appreciate how fascinating it is.

- Outline the organization and functions of the central and autonomic nervous systems
- Locate and identify the major regions of the brain and describe their functions
- Analyze the basic structure and functions of the cranial nerves, spinal cord, and special sense organs
- Discuss common diseases and disorders of the neurological system

UNIT 5 Assignments	
Assignment	Туре

Unit 5 Critical Thinking Questions	Homework
Unit 5 Lab	Homework
Unit 5 Activity	Homework
Unit 5 Discussion 1	Discussion
Unit 5 Discussion 2	Discussion
Unit 5 Quiz	Quiz

#### **Unit 6: The Integumentary System**

The integumentary system is one of the most unappreciated in the body. Most people might guess that the brain, heart, or lungs are the most important organ in the body, but the integumentary system plays a vital role in maintaining homeostasis and protecting all of these other important organs. Let's learn what makes the integumentary system so important.

#### What will you learn in this unit?

- Analyze the structure and function of the integumentary systems
- Discuss potential alterations in skin integrity
- Demonstrate the knowledge and skill related to performing effective hand hygiene
- Identify and analyze common diseases and disorders of the integumentary system

UNIT 6 Assignments	
Assignment	Туре
Unit 6 Critical Thinking Questions	Homework
Unit 6 Lab	Homework
Unit 6 Activity	Homework
Unit 6 Discussion 1	Discussion
Unit 6 Discussion 2	Discussion
Unit 6 Quiz	Quiz

#### **Unit 7: Essential Knowledge About Blood**

Have you ever accidentally cut yourself so badly that your blood started to pool? As horrifying as that experience can be, it's also fascinating to consider exactly what that deep red liquid is. Blood is a tissue that is made up of millions and millions of cells and chemicals that are dissolved within it. Like other body systems, it has multiple intricate parts that work together to perform functions within its own assigned body system and coordinate activities with other body systems. It's the levels of the various components of blood, the path they take to circulate in the body, and their relationship with our heart and lungs that contribute to maintaining homeostasis.

#### What will you learn in this unit?

- Distinguish between the various types of blood vessels
- Demonstrate knowledge of the composition of blood
- Identify the different ABO compatibilities
- Describe various disorders and diseases of the blood and its components

UNIT 7 Assignments	
Assignment	Туре
Unit 7 Critical Thinking Questions	Homework
Unit 7 Lab	Homework
Unit 7 Activity	Homework
Unit 7 Discussion 1	Discussion
Unit 7 Discussion 2	Discussion
Unit 7 Quiz	Quiz

#### Unit 8: The Cardiovascular System and The Heart

We've all seen images on television of someone dramatically grabbing their chest and dropping to the ground, presumably having a heart attack. These significant injuries are a result of problems within the heart that are similar to the flickering of electricity in a room or clogged pipes in a sink. As you move through this unit, you will learn about the power grid and the plumbing in the heart, what happens when they are in top condition, and what happens when there is a disruption in service.

#### What will you learn in this unit?

- Describe the structure and function of the heart and circulatory pathways
- Compare and contrast systemic and pulmonary circulation
- Summarize the path for electrical conduction in the heart
- Discuss common diseases and disorders that affect the cardiovascular system

UNIT 8 Assignments	
Assignment	Туре
Unit 8 Critical Thinking Questions	Homework
Unit 8 Lab	Homework
Unit 8 Activity	Homework
Unit 8 Discussion 1	Discussion
Unit 8 Discussion 2	Discussion
Unit 8 Quiz	Quiz

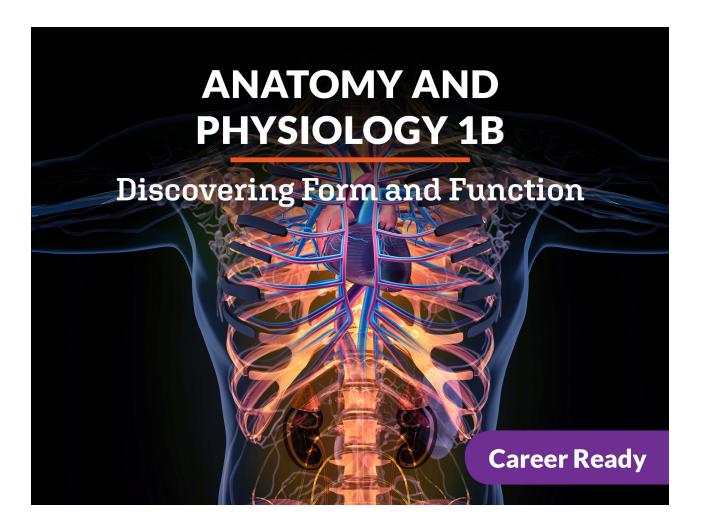
## **Anatomy and Physiology 1a Final Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from units five to eight in this course the last four units. (Note: You will be able to open this exam only one time.)

FINAL Assignments	
Assignment	Туре
Final Exam	Exam
Final Exam Discussion	Discussion



#### What you will learn in this course



#### Anatomy and Physiology 1b: Discovering Form and Function

Examine the form and function of even more body systems. Learn about the structure, function, and interrelation between the lymphatic, immune, respiratory, digestive, urinary, and endocrine systems. The reproductive system is also discussed along with hereditary traits and genetics. And discover the importance of accurate patient documentation as well as the technology used in the industry.

#### Unit 1: The Lymphatic and Immune System

As you've already learned, the lymphatic and immune system is one of the major body systems. Some texts will label this body system as simply 'lymphatic' and exclude the immune system perhaps because you can't see it. For the purposes of this course, however, we're going to combine the lymphatic and immune systems so that you develop an understanding of how these

Appendices page 2353 Pennwood Cyber Charter School

two systems work together to protect the human body from bacteria, viruses, and harmful cells within the body (in autoimmune disease and cancer for example).

#### What will you learn in this unit?

- Describe the structure and function of the immune system
- Compare and contrast the different types of immunity
- Explain the relationship between the lymphatic and circulatory systems
- Discuss common diseases and disorders of the lymphatic and immune system (etiology, prevention, pathology, diagnosis, treatment, and rehabilitation)

UNIT 1 Assignments	
Assignment	Туре
Unit 1 Critical Thinking Questions	Homework
Unit 1 Lab	Homework
Unit 1 Activity	Homework
Unit 1 Discussion 1	Discussion
Unit 1 Discussion 2	Discussion
Unit 1 Quiz	Quiz

#### **Unit 2: The Respiratory System**

It's obvious that the respiratory system is important. All cells of the body require energy, and this energy cannot be obtained through chemical reactions without oxygen. The respiratory system not only provides the route to collect the oxygen that is used in each of the metabolic processes that sustain life, but it also provides the route to rid the body of carbon dioxide, the by product of many of these metabolic processes. In this unit you will examine the structures that support the respiratory system, explore how oxygen is brought to the sites of cellular metabolism to help maintain homeostasis, and learn what happens when the respiratory system is compromised. Now, take a deep breath and read on.

#### What will you learn in this unit?

• Describe the structure and function of the respiratory system

- Compare and contrast ventilation and respiration
- Explain gas exchange
- Discuss common diseases and disorders of the respiratory system (etiology, prevention, pathology, diagnosis, treatment, and rehabilitation)

UNIT 2 Assignments	
Assignment	Туре
Unit 2 Critical Thinking Questions	Homework
Unit 2 Lab	Homework
Unit 2 Activity	Homework
Unit 2 Discussion 1	Discussion
Unit 2 Discussion 2	Discussion
Unit 2 Quiz	Quiz

#### **Unit 3: The Digestive System**

The digestive system is quite familiar to us since we are aware that we use it several times a day. There are so many mechanical and chemical processes, however, that take place to ensure the food we eat is digested and absorbed for use by the body. We might not realize just how complex and critical this body system is. Prepare to be amazed.

- Describe the organization of the digestive system
- Explain the structure and function of the digestive system
- Discuss the six digestive processes and the digestive enzymes
- Describe diseases and disorders of the digestive system

UNIT 3 Assignments	
Assignment	Туре
Unit 3 Critical Thinking Questions	Homework

Unit 3 Lab	Homework
Unit 3 Activity	Homework
Unit 3 Discussion 1	Discussion
Unit 3 Discussion 2	Discussion
Unit 3 Quiz	Quiz

#### **Unit 4: The Urinary System**

We might not enjoy speaking about the functions of the urinary system in our everyday lives, but this body system is critical to our health and to our body's ability to maintain homeostasis. It's important to understand the urinary system but also the important relationships between this system and others, such as the circulatory system. Did you know that the bladder can hold 1000 ml or one whole liter of urine?

- Describe the organization of the urinary system
- Explain the structure and function of the urinary system at both a macro and micro level
- Compare and contrast the female and male urinary systems
- Explain how urine is formed and excreted from the body
- Describe diseases and disorders of the urinary system

<b>UNIT 4</b> Assignment
--------------------------

Assignment	Туре
Unit 4 Critical Thinking Questions	Homework
Unit 4 Lab	Homework
Unit 4 Activity	Homework
Unit 4 Discussion 1	Discussion
Unit 4 Discussion 2	Discussion
Unit 4 Quiz	Quiz

#### Anatomy and Physiology 1b Midterm Exam

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the first four units in this course (Note: You will be able to open this exam only one time.)

MIDTERM Assignments	
Assignment	Туре
Midterm Exam	Exam
Midterm Discussion	Discussion

#### **Unit 5: The Reproductive System and Genetics**

The differences between men and women enable us to create unique and precise human offspring. How can we predict what diseases individuals will have, and how specifically do human beings grow from being tiny cells of fertilization? It's truly fascinating to consider that each of us exists based on odds similar to winning the lottery. When someone tells you that you're one in a million, you're actually going to respond, "no, I'm one in fifteen million." Read on to find out why!

- Compare and contrast the organization of the male and female reproductive systems
- Explain the structure and function of the reproductive system
- Discuss genes and chromosomes from conception to birth
- Understand how a negative is used to create an image print
- Describe common diseases and disorders of the reproductive system

UNIT 5 Assignments	
Assignment	Туре
Unit 5 Critical Thinking Questions	Homework
Unit 5 Lab	Homework

Unit 5 Activity	Homework
Unit 5 Discussion 1	Discussion
Unit 5 Discussion 2	Discussion
Unit 5 Quiz	Quiz

#### **Unit 6: The Endocrine System**

This is the last body system that you will explore in this course. Have you decided yet which one you feel is the most important? Which one, if it fails, will impact a person's life the most? Have you thought about whether breathing is more important than the message the brain sends to the lungs to perform the action of breathing? Is your decision firm? What if you now learn that there are two organ systems that work together more than any others to maintain homeostasis? Would this change your mind? In this unit you are going to learn about the intricate ways that the glands and organs of the endocrine system work with the nervous system to ensure that all the hormone, electrolyte, and fluid levels are kept in balance. After working through this unit, you'll be asked which is truly your favorite unit and the one that you believe plays the most important role in sustaining life.

- Describe the organization of the endocrine system
- Explain the structure and function of organs of the endocrine system
- Explain how the endocrine system maintains homeostasis
- Describe diseases and disorders of the endocrine system

UNIT 6 Assignments	
Assignment	Туре
Unit 6 Critical Thinking Questions	Homework
Unit 6 Lab	Homework
Unit 6 Activity	Homework
Unit 6 Discussion 1	Discussion
Unit 6 Discussion 2	Discussion
Unit 6 Quiz	Quiz

#### Unit 7: Assessing and Documenting Anatomy and Physiology

Have you ever read a journal or a personal memoir? Even a newspaper that recalls a series of events? If you have, you know that what makes them complete and informative is detail. The use of dates, times, and specific words helps the reader understand exactly what is being described by the author. A complete health assessment allows a healthcare provider to develop a full story or sequence of events that apply to a person's situation. The recording of this information on paper or electronically ensures that care can be provided in a consistent, safe way.

#### What will you learn in this unit?

- Identify purposes of a healthcare record
- Discuss legal guidelines for documentation
- Describe confidentiality and the laws that govern patient privacy
- Describe the different methods of data collection
- Conduct a health history
- Organize a basic body systems physical assessment

UNIT 7 Assignments	
Assignment	Туре
Unit 7 Critical Thinking Questions	Homework
Unit 7 Lab	Homework
Unit 7 Activity	Homework
Unit 7 Discussion 1	Discussion
Unit 7 Discussion 2	Discussion
Unit 7 Quiz	Quiz

#### Unit 8: The Science & Technology of Anatomy & Physiology

You've already learned that anatomy and physiology courses are required for students who are beginning their journey to a career in health science or for individuals who want to improve their own health and wellbeing. Along this journey, you may have had questions about where it all began and what the proof is behind certain things that you read, or maybe you've even

questioned why you would possibly need to know some of this material. This unit will bring you back to the beginnings of anatomy and physiology as a science and hopefully answer some of the remaining questions you have about why anatomy and physiology is important. You'll also explore more about the various healthcare careers that use anatomy and physiology as a foundational tool in their scopes of practice.

#### What will you learn in this unit?

- Describe the history of anatomy and physiology as a science
- Distinguish between the scopes of practice of various healthcare professions
- Differentiate between qualitative and quantitative research
- Discuss examples of different types of research studies that can advance the science of anatomy and physiology
- Illustrate the ways in which healthcare professionals work collaboratively

UNIT 8 Assignments	
Assignment	Туре
Unit 8 Critical Thinking Questions	Homework
Unit 8 Lab	Homework
Unit 8 Activity	Homework
Unit 8 Discussion 1	Discussion
Unit 8 Discussion 2	Discussion
Unit 8 Quiz	Quiz

#### Anatomy and Physiology 1b Final Exam

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from units five to eight in this course the last four units. (Note: You will be able to open this exam only one time.)

# FINAL Assignments

Assignment	Туре
Final Exam	Exam
Final Exam Discussion	Discussion

## Course Syllabus

What you will learn in this course



#### **Animation 1a: Introduction**

Have you ever watched a cartoon or played a video game where the animation of characters captivated you so much you wanted to create your own? If so, it's time to immerse yourself in the world of animation. Meet the industry players such as directors, animators, and 3D modelers. Develop your story by exploring design, the 12 principles of animation, creating a storyboard, and leveraging the tools of the trade. Let's bring your story to life with animation!

#### **Unit 1: Basics of Animation**

As a kid, you had your favorite cartoon to watch. You never missed a show, you probably binge watched entire seasons in one day, and you were always left wanting more. But as you became more and more engrossed by the magic unfolding before your eyes, one question kept creeping into your mind: How did they do that? Not a question that can be easily answered; and soon the voice asking that question grew louder and louder in your brain until it was impossible to think of

Appendices page 2362 Pennwood Cyber Charter School

anything else, and your thirst for knowledge needed to be quenched. This has led you here, right now, to learn the secrets of this magical world; and make no mistake, this is magic. After all, magic is really just unexplained science. So let's dive into that science.

#### What will you learn in this unit?

- 1. Trace the origins and early history of the art of animation
- 2. Explore how the eye and brain process moving images
- 3. Compare the differences between past animation techniques and current animation technologies.
- 4. Understand the 12 principles of animation that form the foundation of animation
- 5. Apply two principles: squash and stretch and straight ahead action

UNIT 1 Assignments		
Assignment	Туре	
Unit 1 Critical Thinking Questions	Homework	
Unit 1 Activity 1	Homework	
Unit 1 Activity 2	Homework	
Unit 1 Quiz	Quiz	
Unit 1 Discussion 1	Discussion	
Unit 1 Discussion 2	Discussion	

#### **Unit 2: Hand-Drawn Animation**

Have you ever told a story to your friends? Maybe it was something exciting that just happened to you? In the moment of retelling that awesome experience, what do your hands tend to do? Humans move their hands when telling a story, especially when it makes them passionate. Now imagine people love your story so much that everyone wants to hear it, and sometimes more than once. Are you going to retell the same story over and over again? What if there were a way it could be retold without repeating yourself to every person who wants to hear it, but and here's the catch you still get to use your hands? Dating back to the tales of the earliest cave dwellers, prehistoric humans figured out how to retell a story consistently. Welcome to hand drawn animation.

#### What will you learn in this unit?

- 1. Understand the history of hand drawn animation
- 2. Recognize common forms of traditional animation that are still in use today
- 3. Apply the elements and principles of design
- 4. Identify differences between the two most common forms of hand drawn animation: Disney animation and Japanese anime
- 5. Explain the effect of animation on today's society

UNIT 2 Assignments		
Assignment	Туре	
Unit 2 Critical Thinking Questions	Homework	
Unit 2 Activity 1	Homework	
Unit 2 Activity 2	Homework	
Unit 2 Quiz	Quiz	
Unit 2 Discussion 1	Discussion	
Unit 2 Discussion 2	Discussion	

#### **Unit 3: Camera Animation and Camera Angles**

Thor lies beaten under the boot of Thanos who is about to strike him with a final blow. Suddenly, Thanos is struck by Mjolnir, the hammer only Thor is able to wield. Thanos turns to see who performed the impossible feat, and he can't believe his eyes. Standing before him, wielding the hammer and challenging him to a fight, is Captain America. Great moments like these are remarkably memorable, but they can't be executed without making the right decision about where to position the camera. Get ready to master the role of the silent character that most audience members overlook: the camera.

- 1. Recognize the common camera angles used in animation
- 2. Compare the effectiveness of different camera angles and what they contribute to the mood of the animation
- 3. Explain camera movements used in animation to emphasize the effects of different camera angles

<b>UNIT</b>	3	Assignments
-------------	---	-------------

Assignment	Туре
Unit 3 Critical Thinking Questions	Homework
Unit 3 Activity 1	Homework
Unit 3 Activity 2	Homework
Unit 3 Quiz	Quiz
Unit 3 Discussion 1	Discussion
Unit 3 Discussion 2	Discussion

#### **Unit 4: The Computer Animation Industry**

Ever wonder how magicians create magic in movies and video games? The magicians we'll be talking about are directors, animators, and 3D modelers, and their magic wands are computers, capable of performing an infinite number of algorithmic formulas that are too difficult to solve with calculators. Come inside and see how something created so easily in the imagination comes "alive" in the virtual world of computer animation.

- 1. Understand the basics of computer animation
- 2. Explain the challenges faced by creators involved in major movies or video games and how they solve them
- 3. Describe how films and video games are created from start to finish
- 4. Identify the intricacies of post production and other aspects involved in the of creation of motion pictures and video games
- 5. Judge the impact of technology on the business of animation

UNIT 4 Assignments	
Assignment	Туре

Unit 4 Critical Thinking Questions	Homework
Unit 4 Activity 1	Homework
Unit 4 Activity 2	Homework
Unit 4 Quiz	Quiz
Unit 4 Discussion 1	Discussion
Unit 4 Discussion 2	Discussion

#### **Animation 1a Midterm Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the **first** half of the course (Note: You will be able to open this exam only one time.)

MIDTERM Assignments		
Assignment	Туре	
Midterm Exam	Exam	
Midterm Discussion	Discussion	

#### **Unit 5: Digital 2D Animation**

It's time to create computer animation! Now that you have knowledge about how animation works, it's time to put that knowledge into practice by creating an animation cycle that is, an animation specifically made to be looped commonly used in the industry. To do this, you'll get to try out a new animation tool: the animation software known as Tupi.

#### What will you learn in this unit?

- 1. Describe the Tupi user interface
- 2. Apply a basic understanding of Tupi's tools
- 3. Create an animation cycle with a moving background
- 4. Explain one of the most important principles of animation: timing

Appendices page 2366 Pennwood Cyber Charter School

UNIT 5 Assignments		
Assignment	Туре	
Unit 5 Critical Thinking Questions	Homework	
Unit 5 Activity 1	Homework	
Unit 5 Activity 2	Homework	
Unit 5 Quiz	Quiz	
Unit 5 Discussion 1	Discussion	
Unit 5 Discussion 2	Discussion	

#### **Unit 6: Animated Emotion**

People directly communicate to one another through emotions. If animation is to succeed at simulating the real world, it is only natural to expect that animators will understand how facial expressions and body movement works. The main purpose of creating a film or interactive story is to communicate a message to the audience—that is, what the animators want the audience to experience when watching it. In this unit, you will think about what kind of message you want to express to the audience and how to communicate that message through animation.

- 1. Explain the rules governing motion in the world of animation
- 2. Understand different styles of acting and expressions
- 3. Develop your message to the audience through planning and management
- 4. Communicate your message through expressions

UNIT 6 Assignments		
Assignment	Туре	
Unit 6 Critical Thinking Questions	Homework	
Unit 6 Activity 1	Homework	
Unit 6 Activity 2	Homework	
Unit 6 Quiz	Quiz	

Unit 6 Discussion 1	Discussion
Unit 6 Discussion 2	Discussion

#### **Unit 7: Visual Storytelling**

Want to go to the movies? Well, why do people go? Because of the story! It draws them in and makes them care about the characters, and it lets them immerse themselves in another world. Storytelling dates back to the days of the cave dwellers, and it remains the best way to entertain modern humans. How do you make sure your story will captivate the audience? We have the secrets and the tricks right here — come along and we will tell you a story about telling a story!

#### What will you learn in this unit?

- 1. Understand the three act script structure
- 2. Classify different types of story patterns
- 3. Identify the importance of story in animation
- 4. Give characters depth and personality
- 5. Create storyboards for animation

<b>UNIT 7</b> Assignr	ments
-----------------------	-------

Туре	
Homework	
Homework	
Homework	
Quiz	
Discussion	
Discussion	

#### **Unit 8: The Tools We Use**

The ever growing number of tools used in both the video game and film industries seems to increase by the month. Each tool extends the boundaries of the cutting edge technology used to confound the minds of amazed audience members which includes skeptical professionals who

you might well think had already seen it all. In this unit, you will be introduced to the core tools that form the foundation of video game and film production and learn how to apply them for the purposes of your own animation.

#### What will you learn in this unit?

- 1. Understand traditional and digital tools used in the industry
- 2. Recognize how each tool is vital to specific stages in the production pipeline
- 3. Identify common file formats used in the industry and why they are chosen over other formats

## **UNIT 8** Assignments

Assignment	Туре
Unit 8 Critical Thinking Questions	Homework
Unit 8 Activity 1	Homework
Unit 8 Activity 2	Homework
Unit 8 Quiz	Quiz
Unit 8 Discussion 1	Discussion
Unit 8 Discussion 2	Discussion

#### **Animation 1a Final Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the **second** half of the course (Note: You will be able to open this exam only one time.)

F	11	A	L	As	si	a	n	m	e	nt	S
-						$\supset$					_

Assignment	Туре
Final Exam	Exam
Final Exam Discussion	Discussion

## Course Syllabus

What you will learn in this course



#### **Animation 1b: Animating Your Creativity**

It's time to start animating like the pros! In this hands on course, you'll immediately start exploring the software Blender, your gateway to 3D modeling, computer animation, and postproduction procedures used in the film industry. Discover 3D modeling and animation of characters. Explore the basics of human anatomy and form to apply rigging, joints, and texture. Examine rendering and lighting effects and how to apply sound. And discover careers so you can start using your new skills right away.

#### **Unit 1: Introduction to Blender**

This unit marks your introduction to Blender, one of the industry's most powerful core programs in fact, it is used to create the kind of video games and movies you see in the media today. Best of all, Blender is designed for beginners, regardless of your level of computer literacy. Your

Appendices page 2370 Pennwood Cyber Charter School

introduction to Blender will also be your gateway to 3D modeling, computer animation, and postproduction procedures used in the film industry.

#### What will you learn in this unit?

- 1. Navigate Blender's interface
- 2. Demonstrate a basic understanding of 3D modeling
- 3. Perform the basic steps required to create computer animation

### **UNIT 1** Assignments

Assignment	Туре
Unit 1 Critical Thinking Questions	Homework
Unit 1 Activity 1	Homework
Unit 1 Activity 2	Homework
Unit 1 Discussion 1	Discussion
Unit 1 Discussion 2	Discussion
Unit 1 Quiz	Quiz

#### **Unit 2: Jumping into 3D Animation**

Ready to finally see what it takes to create 3D animation? In this unit, you will delve further into Blender to discover more of the power it offers in creating three dimensional animation. You will visualize different attributes of animation and explore the concept of object interaction to understand why objects move the way they do. Once you complete these lessons you will have a newfound appreciation and critical eye for computer animation.

#### What will you learn in this unit?

- 1. Recognize the different types of 3D animation
- 2. Explain kinematic animation
- 3. Demonstrate the concept of F curves in speeding up and slowing down animation
- 4. Navigate the graph editor used in 3D animation
- 5. Apply the following principles of animation: anticipation, pose to pose, and slow in/slow out

Appendices page 2371 Pennwood Cyber Charter School

#### **UNIT 2** Assignments

Assignment	Туре
Unit 2 Critical Thinking Questions	Homework
Unit 2 Activity 1	Homework
Unit 2 Activity 2	Homework
Unit 2 Discussion 1	Discussion
Unit 2 Discussion 2	Discussion
Unit 2 Quiz	Quiz

#### **Unit 3: Introduction to Modeling & Texture**

Have you ever watched an extremely vivid and polished animated movie or 3D video game and wondered to yourself, "How do they create those 3D characters?" In this unit, you'll begin to explore the basic tools and techniques involved in creating 3D models for characters, and then you'll even get to create a 3D model of your own!

#### What will you learn in this unit?

- 1. Explain the basic principles of 3D modeling
- 2. Understand the basic principles involved in texturing 3D models
- 3. Apply materials, displacement maps, and textures to 3D models
- 4. Use basic modeling tools to create complex objects from primitive ones

#### **UNIT 3** Assignments

Assignment	Туре			
Unit 3 Critical Thinking Questions	Homework			
Unit 3 Activity 1	Homework			
Unit 3 Activity 2	Homework			
Unit 3 Discussion 1	Discussion			

Appendices page 2372 Pennwood Cyber Charter School

Unit 3 Discussion 2	Discussion	
Unit 3 Quiz	Quiz	

#### **Unit 4: The Basics of Batch Render**

Watching the beauty and the awe inspiring moments of CGI is one of the great attractions of the silver screen today. Everything from the grandest shots to the most beautiful surroundings may be taken for granted by the audience; however, a shot that lasts as little as two to three seconds takes a lot of work and collaboration by a group of people. The process of rendering brings all the elements of that hard work into one seamless sequence of images. Now it's time for you to become part of that process.

#### What will you learn in this unit?

- 1. Understand the rendering process, including antialiasing, multipasses, and channels
- 2. Explain the basics of lighting effects and create a system to light up a scene
- 3. Adjust render settings to create a desired effect or the final look of a model and/or an animation
- 4. Render an image and batch render an animation

UNIT	<b>4</b> Assignments	)

Assignment	Туре
Unit 4 Critical Thinking Questions	Homework
Unit 4 Activity 1	Homework
Unit 4 Activity 2	Homework
Unit 4 Discussion 1	Discussion
Unit 4 Discussion 2	Discussion
Unit 4 Quiz	Quiz

#### **Animation 1b Midterm Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the **first** half of the course (Note: You will be able to open this exam only one time.)

Appendices page 2373 Pennwood Cyber Charter School

MIDTERM Assignments				
Assignment	Туре			
Midterm Exam	Exam			
Midterm Discussion	Discussion			

#### Unit 5: Introduction to Rigging: Joints & Weights

Without rigging, the magic of animation does not exist, which makes it essential that you understand some of the basic science behind movement. After all, shouldn't a realistic depiction of the way characters move in a digital world reflect the physics of our own movement in the real world? To accomplish this, we will examine how a virtual skeleton is constructed inside a beautifully created 3D model and consider the careful procedure of attaching that skeleton to a sophisticated puppet that is unlike anything you have ever seen.

#### What will you learn in this unit?

- 1. Construct a skeletal joint system in Blender
- 2. Recognize the basic functions of joint orientation and how joints move an object like a humanoid character
- 3. Understand the relationship between the joint system and the "skin" of a 3D model
- 4. Produce an animatic that is crucial to the production of computer animation

UNIT 5 Assignments			
Assignment	Туре		
Unit 5 Critical Thinking Questions	Homework		
Unit 5 Activity 1	Homework		
Unit 5 Activity 2	Homework		
Unit 5 Discussion 1	Discussion		
Unit 5 Discussion 2	Discussion		

Appendices page 2374 Pennwood Cyber Charter School

Unit 5 Quiz Quiz

## **Unit 6: Human Anatomy and Form**

Animated characters are not real, so animators do not really need to understand the human body, right? Wrong! You do need to know how to draw the human form, including its bone structure and muscles, and appreciate how body mechanics perform in the real world to draw not only believable characters but also stylized, animated ones. Together, we will tackle the basics and then you can let your imagination fly, while taking your audience along for the ride.

#### What will you learn in this unit?

- 1. Identify both the facial and body proportions of a human
- 2. Describe the basic anatomy of the human body
- 3. Discuss the importance of poses in an animation and how they communicate emotion
- 4. Create exaggerated poses using a functional character rig

UNIT 6 Assignments				
Assignment	Туре			
Unit 6 Critical Thinking Questions	Homework			
Unit 6 Activity 1	Homework			
Unit 6 Activity 2	Homework			
Unit 6 Discussion 1	Discussion			
Unit 6 Discussion 2	Discussion			
Unit 6 Quiz	Quiz			

#### **Unit 7: Connecting Sound to Animation**

Sound in your animation is just as important as visuals; without it, people would never jump from their seats while watching scary horror movies. Why? Because of the anticipation! Sound can heighten excitement and create a sense of realism or exaggeration. In this unit, you will discover the key role sound plays in animation and see how sound is imported, edited, and integrated with visual elements.

#### What will you learn in this unit?

- 1. Identify basic sound elements in movies and video games
- 2. Describe the basics of sound editing in Blender
- 3. Explain how lip syncing is created
- 4. Combine images and sound

## **UNIT 7** Assignments

Assignment	Туре
Unit 7 Critical Thinking Questions	Homework
Unit 7 Activity 1	Homework
Unit 7 Activity 2	Homework
Unit 7 Discussion 1	Discussion
Unit 7 Discussion 2	Discussion
Unit 7 Quiz	Quiz

#### **Unit 8: A Career in Animation**

Animation is fun stuff! Who would not want to spend their days making amusing characters do silly things to entertain audiences? On the other hand, perhaps you have a more serious side and would like to apply your talents to medicine, the military, or engineering — that is possible for animators too! Whatever your dream, today is the first day on the path to a lifetime of fulfilling work as an animator. Seize the day!

#### What will you learn in this unit?

- 1. Create a portfolio and demo reel to present to potential employers
- 2. Describe concerns related to intellectual property and copyright law
- 3. Find training opportunities and develop your networking skills
- 4. Learn how to maintain an established business relationship

#### **UNIT 8** Assignments

Assignment	Туре
Unit 8 Critical Thinking Questions	Homework
Unit 8 Activity 1	Homework
Unit 8 Activity 2	Homework
Unit 8 Discussion 1	Discussion
Unit 8 Discussion 2	Discussion
Unit 8 Quiz	Quiz

## **Animation 1b Final Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the **second** half of the course (Note: You will be able to open this exam only one time.)

FINAL Assignments	
Assignment	Туре
Final Exam	Exam
Final Exam Discussion	Discussion



#### **Art History**

Course Instructional Time: 170 hours

**Instructional Activities:** 

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

**Course Summary:** 

#### **SEMESTER A**

Welcome to the first semester of Art History! In this course, the student will take up the question "What is art?" as he explores the artistic endeavors of early civilizations. Early in the course, the student will explore some of the basic elements and principles of art and its role in human history and the development of culture. He will also think about the ways that a work of art interacts with human sensory perception to produce a particular effect, as well as various other factors that affect the interpretation of a work of art. Once the student has obtained a basic foundation in art theory, he will begin to examine the history of art from its earliest manifestations in prehistoric times up through the ancient Egyptian civilization.

#### **SEMESTER B**

Welcome to the second semester of Art History! In this course, the student will build upon his basic foundation in art theory to examine the history of art. He will trace the history of art from ancient Greece to the Roman Empire. Along the way, the student will encounter art forms such as pottery, architecture, and sculpture. By the end of the course, the student will not only have acquired a knowledge of ancient art history, the student will also have a better understanding of art as both a reflection and engine of history.

#### **Course Outline:**

#### **SEMESTER A**

- 1. Journey Through Ancient Art History
  - 1. What You Will Learn
    - Take a "virtual" field trip to the Metropolitan Museum of Art
    - Examine how an artist's feelings are evident in his or her works
    - Consider how your own culture influences your perspective of art
    - Respond to the question "What is Art?"
  - 2. Beginning the Journey
    - Examine the three viewpoints of art
    - List and explain the five major reasons art is created
    - Follow the analytical steps for art history and art criticism
  - 3. Elements of Art

- List and apply the elements of art
- Explore the influence of nature on art
- 4. The Principles of Art
  - Examine, identify, and apply the principles of art
  - Consider choices, intentions, and strategies artists employ
  - Develop a visual vocabulary and appreciation of the visual arts

#### 2. Art at the Start: Early Civilization

- 1. Prehistoric Expression: Making Pictures
  - Discover, examine, and define prehistoric art
  - Explore cave paintings
  - Assess cave art in Altamira, Spain, and its direct significance to the journey of human history
  - Appraise cave art in Lascaux, France, in terms of geography, discovery, and humankind's early complex visual representation
- 2. Prehistoric Expression: Stone Monoliths
  - Identify and interpret Paleolithic art
  - Develop new art vocabulary related to Stone Age art
  - Explore the history and giant stone monoliths of Easter Island
  - Explore the history and mystery of Stonehenge
  - Apply, transfer and correlate visual observation with poetic writing
- 3. Fertile Crescent: Sumerian Art and Architecture
  - Explore the earliest civilizations that developed in the Fertile Crescent
  - Learn about the civilization of ancient Sumeria
  - Discover, view, and explore Sumerian art and architecture
- 4. Fertile Crescent: Assyrian and Neo-Babylonian Art
  - Examine the history and art of the Assyrian Empire
  - Discover the Neo-Babylonian Period and related architecture
  - Examine the history of Persia and its pottery
- 5. Art History A Midterm Project
  - Select a topic for an original research project
  - Use information from a variety of sources to formulate answers to the research questions
  - Follow MLA style for documenting information from sources

#### 3. Egypt: Art on the Nile

- 1. An Oasis of Art: Geography and History
  - Explore the geography of the Nile River Valley
  - Read an overview of the history of Ancient Egypt
  - Get acquainted with the essentials of Egyptian religious beliefs
  - Learn about the significance of papyrus and the method of its production
  - Examine the practice and process of mummification
- 2. An Oasis of Art: Art Written in Stone
  - Revisit and gain architectural knowledge of the Step Pyramid and the pyramids of Giza
  - Understand and appreciate the religion of ancient Egypt
  - Gain knowledge and understanding of hieroglyphics as well as the ability to use picture writing

- Look at the significance and role of tomb painting
- 3. A Grand New Egypt: Monuments to a Grand Egypt
  - Learn about that renowned and mysterious monument, the Sphinx
  - Explore the obelisk
- 4. Grand New Egypt: King Tut and the New Kingdom
  - Examine important events, rulers, and achievements of the New Kingdom
  - Refine your understanding of art and architecture from the three main eras of ancient
     Egypt
  - Examine the life of one of ancient Egypt's most powerful female pharaohs
  - View antiquities from ancient Egypt and use your critical thinking skills to explain how these antiquities are representative of the culture to which they belong

#### 4. Final Review and Exam

- 1. Art History A Final Review
  - Decide which strategies you will use to prepare for your exam
  - Organize your time and study materials
  - Review your notes, keywords and vocabulary terms, and all important concepts that may be covered on this exam
- 2. Art History A Final

There are no objectives for this lesson.

#### **SEMESTER B**

#### 1. Greece: Gods and Glory

- 1. The World of Ancient Greece
  - Discover how democracy was born
  - Familiarize yourself with the history and culture of the Early Archaic
  - Archaic, Classical, and Hellenistic periods in Greek history
- 2. Greek Architecture
  - Identify the three types of Greek columns
  - Examine the columns' application in structures found in Greece and in the United States
  - Explore Greek buildings and temples
  - Develop a comprehensive understanding of the Parthenon by examining its origin, history, and architecture
- 3. Greek Pottery
  - Examine Greek artistic influences
  - Expand your knowledge of pottery
  - Explore the purpose, function, and intention of Greek pottery
- 4. Greek Sculpture: An Overview
  - Distinguish the three major periods of Greek sculpture
  - Classify sculpture according to its characteristics
  - View examples of sculpture from each period
- 5. Archaic Sculpture
  - Discover how the Archaic style of sculpture developed
  - Learn to recognize the characteristics of Archaic sculpture
  - Distinguish Archaic sculpture from Greek sculpture of other periods
- 6. Classical Sculpture
  - Become acquainted with the characteristics of Classical Greek sculpture

- Study the Discobolus, the epitome of the Classical period
- View sculpture by Classical sculptors Myron and Praxiteles
- 7. Hellenistic Sculpture
  - Study the influences Alexander the Great had in developing Hellenism
  - View Hellenistic sculpture and its characteristics
- 8. Art History B Midterm Project
  - Select a topic for an original research project
  - Use information from a variety of sources to formulate answers to the research questions
  - Follow MLA style for documenting information from sources

#### 2. Ancient Rome: Art of an Empire

- 1. Introduction to Ancient Rome: History and Culture
  - Explore early Rome
  - Look at the growth of the Roman Republic
- 2. Introduction to Ancient Rome: Roman Art Overview
  - Examine the development of Roman art
  - Gain an understanding of Roman sculptures
- 3. Roman Sculpture: Greek Influences
  - Understand the influence of the Greeks on Roman sculpture
  - Explore some of the Vatican Museum's examples of Greco-Roman sculpture
- 4. Roman Sculpture: Roman Portraiture
  - Explore Roman portrait sculptures in detail
  - Discover the public and private use of portrait sculpture
  - Study the use of portraiture on Roman coins and gems
- 5. Roman Architecture: An Introduction
  - Understand Roman architecture from an historical perspective
  - Learn the basics of Roman architecture
  - Develop a visual sense of Roman architecture
- 6. Roman Architecture: Arches and Columns
  - Explore how the Romans developed the arch
  - Study Roman use of columns
  - Reflect on how the Greeks influenced Roman columns
- 7. Domestic Roman Architecture
  - Explore the development of Roman domestic architecture
  - Discover the impressive architecture of Roman palaces

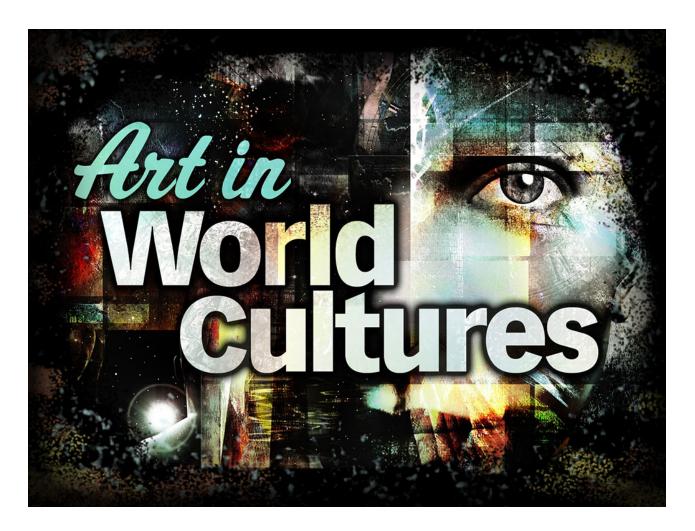
#### 3. Final Review and Exam

- 1. Art History B Final Review
  - Decide which strategies you will use to prepare for your exam
  - Organize your time and study materials
  - Review your notes, keywords and vocabulary terms, and all important concepts that may be covered on this exam
- 2. Art History B Final

There are no objectives for this lesson.

# Course Syllabus

## What you will learn in this course



### **Art in World Cultures**

Who is the greatest artist of all time? Is it Leonardo daVinci? Claude Monet? Michelangelo? Pablo Picasso? Is the greatest artist of all time someone whose name has been lost to history? You will learn about some of the greatest artists while also creating art of your own, including digital art. We will explore the basic principles and elements of art, learn how to critique art, and examine some of the traditional art of the Americas, Africa, and Oceania in addition to the development of Western art.

### **Unit 1: Introduction to the Visual Arts**

Pablo Picasso once said, "The purpose of art is washing the dust of daily life off our souls." Art speaks to our emotions and imaginations. It allows us to see the world in different ways and fulfill the need to create. In this unit, we will begin our exploration of the history of art around

Appendices page 2382 Pennwood Cyber Charter School

the world. We will learn about some of the common forms of visual art and discuss why people create art. We will also explore some of the careers that relate to art history.

## What will you learn in this unit?

- Define "visual art" and distinguish visual arts from other forms of art.
- Identify common forms of visual art.
- Discuss why people create art.
- Discuss art movements and art periods.
- Describe career options related to art history and the study of art.

UNIT 1 Assignments		
Assignment	Туре	
Unit 1 Critical Thinking Questions	Homework	
Unit 1 Lab	Homework	
Unit 1 Discussion 1	Discussion	
Unit 1 Discussion 2	Discussion	
Unit 1 Quiz	Quiz	

## Unit 2: The Elements and Principles of Art

In this unit, we will explore some of the aspects that help make great art great. We'll learn more about the basic building blocks of artworks, including lines, color, texture, shape, form, and space. We'll also discuss how these building blocks are used with art by looking at some of the design principles that artists use to arrange art elements within a piece of art. We will discuss design principles such as harmony, proportion, balance, and dominance.

- Define art concepts such as hue, value, shape, form, and balance.
- Identify the elements of art.
- Identify some of the design principles that artists use.
- Discuss how the elements of art are used within art pieces.
- Discuss how design principles are used to arrange the elements of art.

## **UNIT 2** Assignments

Assignment	Туре
Unit 2 Critical Thinking Questions	Homework
Unit 2 Lab	Homework
Unit 2 Discussion 1	Discussion
Unit 2 Discussion 2	Discussion
Unit 2 Quiz	Quiz

## **Unit 3: Critiquing Art**

How can you identify a good piece of art? Art critiques can help us better understand artworks and help us identify those pieces of art that illustrate superior skills. In this unit, we will learn more about art critiques, including why we do art critiques and how context can influence them. We will also walk through an art critique of a famous French Romantic painting *The Raft of the Medusa* by Theodore Gericault.

## What will you learn in this unit?

- Define art critique.
- Identify some of the benefits of doing art critiques.
- Explain how context can influence an art critique.
- Discuss the steps that can be used to complete an art critique.
- Engage in an art critique of the painting *The Raft of the Medusa*.

## **UNIT 3** Assignments

Assignment	Туре
Unit 3 Critical Thinking Questions	Homework
Unit 3 Lab	Homework
Unit 3 Discussion 1	Discussion
Unit 3 Discussion 2	Discussion

Unit 3 Quiz	Quiz
-------------	------

#### **Unit 4: Prehistoric Art**

When did humans begin creating art? What did the first pieces of artwork look like? What function did early artwork have for people? Prehistoric art represents the earliest human art. Although these artworks are shrouded in mystery, they give us a small glimpse into the lives and beliefs of prehistoric people. In this unit, we'll learn more about some of the artwork that has been found from prehistoric times, including cave paintings, sculptures, and megaliths. We'll explore what is known about these pieces of art and what they might tell us about the people that created them.

### What will you learn in this unit?

- Define prehistoric art and discuss why much of this art remains a mystery to archaeologists and art historians.
- Describe cave paintings and discuss some of the theories about why they were created.
- Compare and contrast Paleolithic and Neolithic art.
- Examine prehistoric sculpture and the reasons it may have been created.
- Discuss prehistoric megalith monuments and examine the theories about why these monuments were created.

UNIT 4 Assignments		
Assignment	Туре	
Unit 4 Critical Thinking Questions	Homework	
Unit 4 Lab	Homework	
Unit 4 Discussion 1	Discussion	
Unit 4 Discussion 2	Discussion	
Unit 4 Quiz	Quiz	

#### **Unit 5: Ancient Art**

As human societies continued to develop, so did their art. The great ancient societies, such as Ancient Egypt and Ancient Greece, produced some of the most famous pieces of art and architecture known to the world. In this unit, we will focus on three of the ancient cultures from the Mediterranean and Near East, including the Sumerians, Ancient Egypt, and Ancient Greece. We will examine the characteristics of art from these groups and explore some of the pieces that they produced.

### What will you learn in this unit?

- Identify some of the common characteristics of ancient art.
- Discuss the art of ancient Sumerians.
- Explain how Ancient Egyptian religion influenced its art.
- Identify and discuss the styles of Ancient Greek architecture.
- Identify the styles of Ancient Greek sculpture and pottery.

UNIT 5 Assignments		
Assignment	Туре	
Unit 5 Critical Thinking Questions	Homework	
Unit 5 Lab	Homework	
Unit 5 Discussion 1	Discussion	
Unit 5 Discussion 2	Discussion	

# Unit 6: Ancient Roman, Early Christian, and Medieval Art

The period of Western art from the ancient Romans to the medieval period produced some of the world's most important cathedrals and other grand buildings. Even the ruins of Roman architecture can give us pause with its beauty and advancements. In this unit, we will learn more about the architecture of these periods, as well as some of the other types of art that were produced. These pieces of art and the techniques the artists used helped form the foundations of the Western art we know today.

### What will you learn in this unit?

Unit 5 Quiz

- Describe the features used in Roman architecture.
- Examine early Christian art and its influence on later architecture and art.
- Define Byzantine, migration, and insular art and the characteristics of these art periods.

Ouiz

- Discuss the characteristics of Romanesque art.
- Identify the common features of Gothic architecture.

UNIT	6	Assignments
------	---	-------------

Assignment	Туре
Unit 6 Critical Thinking Questions	Homework
Unit 6 Lab	Homework
Unit 6 Discussion 1	Discussion
Unit 6 Discussion 2	Discussion
Unit 6 Quiz	Quiz

## **Art in World Cultures Midterm Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the first six units in this course (Note: You will be able to open this exam only one time.)

MIDTERM Assignments	
Assignment	Туре
Midterm Exam	Exam
Midterm Discussion	Discussion

### **Unit 7: The Renaissance**

In Western art, the period known as the Renaissance produced some of the most famous works of art, including the *Mona Lisa*, the ceiling of the Sistine Chapel, and *The Last Supper*. These works of art helped shape Western art as we know it and became part of our popular culture. In this unit, we will learn more about the art produced during the Renaissance as well as Early Netherlandish art. We will be introduced to some of the greatest artworks produced in Western art and learn more about how their artists were influenced by the social world around them.

### What will you learn in this unit?

- Identify the characteristics of Renaissance art.
- Discuss Early Netherlandish art and its relationship to Renaissance art.
- Explain how other disciplines of study and social factors influenced Renaissance art.
- Examine some of the most famous works of Renaissance art, including those by Leonardo da Vinci, Michelangelo, and Raphael.
- Define Mannerism and discuss how it differed from the art of the High Renaissance.

UNIT 7 Assignments	
Assignment	Туре
Unit 7 Critical Thinking Questions	Homework
Unit 7 Lab	Homework
Unit 7 Discussion 1	Discussion
Unit 7 Discussion 2	Discussion
Unit 7 Quiz	Quiz

## **Unit 8: Art of the Americas**

From massive geoglyphs to sculptures made of jade, indigenous cultures in the Americas have created some amazing works of art. In this unit, we will focus on pre Columbian art in the Americas. In doing so, we will look at art from the Olmec, Maya, Aztec, and Inca cultures as well as art created in North America, such as beadwork, basket art, and totem poles.

### What will you learn in this unit?

- Discuss geoglyphs in North and South America.
- Define pre Columbian art in the Americas.
- Identify prehistoric painting in the Americas.
- Examine art from major cultural empires in Mesoamerica and South America, including the Olmec, Maya, Aztec, and Inca cultures.
- Discuss indigenous art in North America such as beadwork, baskets, and totem poles.

Appendices page 2388 Pennwood Cyber Charter School

UNIT 8 Assignments		
Assignment	Туре	
Unit 8 Critical Thinking Questions	Homework	
Unit 8 Lab	Homework	
Unit 8 Discussion 1	Discussion	
Unit 8 Discussion 2	Discussion	
Unit 8 Quiz	Quiz	

### Unit 9: From the Baroque to the Romantics

The Renaissance in Europe is often regarded as the height of art. It produced great masterpieces and some of the greatest artists in history. However, art didn't end when the Renaissance ended. Instead, new artists innovated, revived classical forms, and challenged themselves. In this unit, we will consider four of the main art periods and styles that came after the Renaissance, including Baroque, rococo, neoclassical and Romantic art.

## What will you learn in this unit?

- Identify the characteristics of Baroque, rococo, neoclassical and Romantic art.
- Discuss the social and political influences on Baroque, rococo, neoclassical, and Romantic art.
- Explain how art from earlier periods influenced Baroque, rococo, neoclassical, and Romantic art.
- Examine some of the important pieces of art from the Baroque, rococo, neoclassical and Romantic periods.
- Compare and contrast Baroque art with Renaissance art.

UNIT 9 Assignments		
Assignment	Туре	
Unit 9 Critical Thinking Questions	Homework	
Unit 9 Lab	Homework	
Unit 9 Discussion 1	Discussion	

Appendices page 2389 Pennwood Cyber Charter School

Unit 9 Discussion 2	Discussion	
Unit 9 Quiz	Quiz	

#### Unit 10: Modern Art

During the 19th century, the beginnings of modern art emerged. Styles and periods such as Realism, Impressionism, and Postimpressionism formed the foundation for later art styles and movements. The development of photography also provided artists with both a new art form and new inspiration. In this unit, we will learn more about the art and artists that shaped the early modern period and look forward to postmodern and contemporary art.

### What will you learn in this unit?

- Define art movements such as Impressionism, Postimpressionism, Expressionism, and Realism.
- Identify the characteristics of Impressionistic and Postimpressionistic art.
- Describe how modern art movements build on and react to other movements.
- Discuss some of the major artists of Impressionism and Postimpressionism.
- Discuss the beginning of photography and its use as an art form.

## **UNIT 10** Assignments

Assignment	Туре
Unit 10 Critical Thinking Questions	Homework
Unit 10 Lab	Homework
Unit 10 Discussion 1	Discussion
Unit 10 Discussion 2	Discussion
Unit 10 Quiz	Quiz

## Unit 11: African Art

Africa is home to the earliest humans and some of the earliest known art. Although African art has sometimes been dismissed as "primitive," the art produced in Africa is some of the longest continuously practiced art in the world, and its influences are seen across the globe. In this unit,

we will learn more about premodern African art, including rock art, sculpture, and masks. We will also learn more about some of the most famous examples of African architecture.

## What will you learn in this unit?

- Identify the phases of rock engraving found in Africa.
- Describe the sculptures created by different cultures in Africa.
- Discuss the different types of masks created and what materials were used to make them.
- Identify some of the famous architectural creations in Africa.
- Discuss some of the social and natural factors that influenced the creation of art in Africa.

UNIT 11 Assignments		
Assignment	Туре	
Unit 11 Critical Thinking Questions	Homework	
Unit 11 Lab	Homework	
Unit 11 Discussion 1	Discussion	
Unit 11 Discussion 2	Discussion	
Unit 11 Quiz	Quiz	

### Unit 12: Oceanic Art

Does art reflect the world around us? Can we learn about a culture from the art it produces? Pacific or Oceanic art offers us a chance to explore how the natural world, religious beliefs, and other aspects of culture affect the art created within a group. In this unit, we will examine some of the art created in Polynesia, Micronesia, Melanesia, and Australia, exploring how the art has been influenced by culture, the Pacific Ocean, and other aspects.

- Identify some of the characteristics of Oceanic art.
- Describe some of the human sculptures found in Polynesia.
- Discuss how the Pacific Ocean and life on Pacific islands influenced Micronesian art.
- Learn more about Bisj poles and other Melanesian art creations.
- Identify some of the styles of rock art present in Australia.

# **UNIT 12** Assignments

Assignment	Туре
Unit 12 Critical Thinking Questions	Homework
Unit 12 Lab	Homework
Unit 12 Discussion 1	Discussion
Unit 12 Discussion 2	Discussion
Unit 12 Quiz	Quiz

# **Art in World Cultures Final Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from units seven to twelve in this course the last six units. (Note: You will be able to open this exam only one time.)

FINAL Assignmen	ts
-----------------	----

Assignment	Туре
Final Exam	Exam
Final Exam Discussion	Discussion

# Course Syllabus

## What you will learn in this course



#### **ASTRONOMY 1A: INTRODUCTION**

Ever wondered how the Earth developed and exists in the vastness of space? How do the scientific laws of motion and gravity play a role in its existence? Discover answers to these questions and explore the origin of the universe, the Milky Way, and other galaxies and stars, including the concepts of modern astronomy and the methods used by astronomers to learn more about the universe.

### **Unit 1: The Universe**

We will take a journey through space and time from the beginning to the end of the universe. Can you think of anything larger or more expansive than the universe? How was the universe created? How is the universe changing? What exactly is our universe made from? These are all questions that scientists have been trying to answer since the idea of a universe was formed in the minds of our earliest cosmologists. Astronomers and other scientists have since accumulated

Appendices page 2393 Pennwood Cyber Charter School

a great deal of knowledge about what has happened and what is currently happening since the inception of the universe.

## What will you learn in this unit?

- Describe the study of the cosmos.
- Discuss the theory of the origin of the universe.
- Analyze the evidence that supports the Big Bang theory.
- Examine the composition of matter and how it is distributed within the universe.
- Describe the theories of evolution and fate of the universe.

UNIT 1 Assignments		
Assignment	Туре	
Unit 1 Critical Thinking Questions	Homework	
Unit 1 Lab	Homework	
Unit 1 Activity	Homework	
Unit 1 Discussion 1	Discussion	
Unit 1 Discussion 2	Discussion	
Unit 1 Quiz	Quiz	

## Unit 2: Techniques and Tools of the Trade: Studying the Universe

At one point or another, you have probably looked up at the sky at night and thought about how big the universe really is. At times, space can appear like an empty vacuum, and other times, we realize that the universe is filled with such a wide variety of materials, substances, and celestial bodies that it seems more than overwhelming. Scientists have been studying the universe for thousands of years in various ways using many different processes and tools. Today, astronomers follow the scientific method and utilize several types of astronomical tools including binoculars, telescopes, and even software that can replicate the night sky! How will you apply these techniques and tools to study our universe?

### What will you learn in this unit?

• Distinguish science from pseudoscience

- Discuss the impact of scientific research on our society
- Follow the steps of the scientific method to conduct an astronomy investigation
- Choose proper tools and follow safety procedures in the field

<b>UNIT</b>	2	<b>Assignments</b>
-------------	---	--------------------

Assignment	Туре
Unit 2 Critical Thinking Questions	Homework
Unit 2 Lab	Homework
Unit 2 Activity	Homework
Unit 2 Discussion 1	Discussion
Unit 2 Discussion 2	Discussion
Unit 2 Quiz	Quiz

### Unit 3: The Earth, Moon, and Sun Systems

Day turns into night, and summer turns into fall. Why do we experience these predictable changes on Earth? In this unit, we will explore the systems and interactions between the sun, Earth, and moon. You will learn how the Earth's motion in space causes us to experience days, nights, and seasons in a cyclic pattern. We will discuss the properties of gravity and how gravity affects the relationships between orbiting bodies in space. You will discover how solar and lunar eclipses occur and examine the characteristics, origin, and phases of the moon.

## What will you learn in this unit?

- Learn about the movements of celestial bodies in the sky.
- Describe how the motion of the Earth causes seasons and night day cycles.
- Identify the characteristics and phases of the moon.
- Explore how the moon's gravitational pull manipulates tides on Earth.
- Distinguish between a lunar eclipse and a solar eclipse.

## **UNIT 3** Assignments

Assignment	Туре
Unit 3 Critical Thinking Questions	Homework
Unit 3 Lab	Homework
Unit 3 Activity	Homework
Unit 3 Discussion 1	Discussion
Unit 3 Discussion 2	Discussion
Unit 3 Quiz	Quiz

#### **Unit 4: Stars**

What are stars? Where did they come from? Will stars evolve with time? In this unit you will discover the secrets behind the stars in our night sky. We will solve the mystery behind why and how stars shine. We will explore the characteristics and composition of stars. You will learn how astronomers classify types of stars using the H R diagram and how stars are identified within the celestial sphere. Finally, we will examine the evolution, or life cycle, of a star from conception to death.

- Describe the composition and characteristics of stars.
- Learn how astronomers identify and describe constellations such as Ursa Major, Ursa Minor, Orion, and Cassiopeia.
- Analyze and characterize stars by their physical and chemical properties.
- Explain the use of diagrams and models in obtaining physical data on stars.
- Examine the evolution of stars.

UNIT 4 Assignments		
Assignment	Туре	
Unit 4 Critical Thinking Questions	Homework	
Unit 4 Lab	Homework	
Unit 4 Activity 1	Homework	
Unit 4 Activity 2	Homework	

Unit 4 Discussion 1	Discussion
Unit 4 Discussion 2	Discussion
Unit 4 Quiz	Quiz

# **Astronomy 1a Midterm Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the first four units in this course (Note: You will be able to open this exam only one time.)

MIDTERM Assignments		
Assignment	Туре	
Midterm Exam	Exam	
Midterm Discussion	Discussion	

### **Unit 5: Galaxies**

Galaxies are beautiful, majestic, and mysterious places within our universe. Our home in the Milky Way galaxy is a galactic suburb, far from other galaxies. Our Sun is just one of approximately 500 billion stars in our galaxy, meaning that there could possibly be up to 500 billion solar systems, maybe like our own, in the universe. In addition, the Milky Way galaxy is only one of the 50 billion to one trillion galaxies that are thought to exist in our observable universe. Compared with the whole universe, our home, Earth, is like a speck of sand in the largest desert imaginable.

In this unit, we will examine and describe the evolution, organization, distribution, and differences among types of galaxies. You will be able to characterize the movement of galaxies within the universe and describe the properties of our own galaxy, the Milky Way. Finally, we will discover the incredibly mysterious and dark forces that shift and shape galaxies.

- Differentiate and describe the types of galaxies within the universe.
- Characterize the Milky Way.
- Identify how galaxies are organized and distributed within the universe.

- Describe the evolution of galaxies.
- Examine the forces that shape galaxies of stars.

<b>UNIT</b>	5	Assignments
-------------	---	-------------

Assignment	Туре
Unit 5 Critical Thinking Questions	Homework
Unit 5 Lab	Homework
Unit 5 Activity	Homework
Unit 5 Discussion 1	Discussion
Unit 5 Discussion 2	Discussion
Unit 5 Quiz	Quiz

## Unit 6: The Milky Way

You have just traveled through the universe, exploring the different galaxies that make up outer space. Now, it's time to return to our own galaxy: the Milky Way. The Milky Way galaxy is what houses the solar system within which our planet Earth resides. Just how old is the Milky Way? And what kind of tools do scientists use to understand our galaxy? It's time to drive a little deeper into our home galaxy of the Milky Way.

- Find ways to determine the age of the Milky Way
- Discover the oldest planet located in the Milky Way
- Decipher why there are more younger stars than older stars in the galaxy
- Understand Gaia Mapping and how it is used today

<b>UNIT 6</b> Assignment	ts
--------------------------	----

Assignment	Туре
Unit 6 Critical Thinking Questions	Homework

Unit 6 Lab	Homework
Unit 6 Activity 1	Homework
Unit 6 Activity 2	Homework
Unit 6 Discussion 1	Discussion
Unit 6 Discussion 2	Discussion
Unit 6 Quiz	Quiz

#### **Unit 7: Black Holes**

Possibly no celestial object has captured the attention and imagination of scientists and lay people the way black holes have. Even before they were officially "discovered," people noticed areas of darkness in the night sky. Now that we know more about black holes, it seems the questions just keep coming. Their power and force are only beginning to be understood by scientists.

## What will you learn in this unit?

- Define black holes and understand why they are important
- Trace the history of black holes
- Answer questions about how we detect black holes, how they form, and how big and strong they are
- Discuss what happens at the event horizon and singularity of a black hole
- Investigate time travel options that black holes might offer

UNIT 7 Assignments		
Assignment	Туре	
Unit 7 Critical Thinking Questions	Homework	
Unit 7 Lab	Homework	
Unit 7 Activity	Homework	
Unit 7 Discussion 1	Discussion	
Unit 7 Discussion 2	Discussion	
Unit 7 Quiz	Quiz	

Appendices page 2399 Pennwood Cyber Charter School

## **Unit 8: Becoming a Space Professional**

Now that we've discussed what the universe is, how it is studied, and where we fit in, you may be eager to explore ways that you can continue learning even more about space! In this unit we'll explore careers in astronomy from astronauts who literally travel through the stars to the crew that supports them on the ground and much more. Whether you have more technical and mathematical skills, love writing and communication, or want to "stay in school" forever, there is likely a career for you in the aerospace industry.

### What will you learn in this unit?

- Understand what skills are required to enter into various space related careers
- Discuss the roles in the mission control center that support astronauts in space
- Investigate other careers that support space missions and exploration
- Create an education plan that will prepare you for a career in astronomy

## **UNIT 8** Assignments

Assignment	Туре
Unit 8 Critical Thinking Questions	Homework
Unit 8 Lab	Homework
Unit 8 Activity 1	Homework
Unit 8 Activity 2	Homework
Unit 8 Discussion 1	Discussion
Unit 8 Discussion 2	Discussion
Unit 8 Quiz	Quiz

## Astronomy 1a Final Exam

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from units five to eight in this course the last four units. (Note: You will be able to open this exam only one time.)

Appendices page 2400 Pennwood Cyber Charter School

# **FINAL** Assignments

Assignment	Туре
Final Exam	Exam
Final Exam Discussion	Discussion



#### **Career Planning and Skill Development**

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

#### **Summary:**

As a high school student, it may seem like entering the workforce is right around the corner. It's important that you're prepared. The Career Planning and Skill Development course will introduce you to the workforce by having you explore your interests, values, and skills. Knowing yourself better in this way will help you plan for your future career. As part of this planning process, you will learn about a variety of career fields—from business, to education, to public service. Many career fields may interest you. The course also teaches you the important task of finding a job. You will learn how to write a cover letter and resume, fill out a job application, and act in an interview. You will learn the qualities of a successful employee, and additional career-related skills, such as problem-solving and communication.

#### **Course Outline**

#### 1. Introduction to Career Planning

- 1. Why Do I Need a Job?
  - Differentiate between needs and wants
  - Identify goods and services, and how the economy relates to career opportunities
  - Identify the effects of supply and demand on the job market
- 2. Career Planning
  - Identify potential career types and categories
  - Identify career research resources
- 3. Career Expectations
  - Manage career expectations
  - Determine personal values
- 4. Introduction to Career Planning Unit Test

  There are no objectives for this lesson.

#### 2. Self-Assessment

- 1. My Personality
  - Analyze your interests, aptitudes and skills
- 2. My Interests, Aptitudes, and Skills
  - Analyze your skills, values, and personality type
  - Identify personal traits suited for certain types of careers
- 3. My Skills and Values
  - Analyze your skills and values

- Identify personal traits suited for certain types of careers
- 4. Self-Assessment Analysis Portfolio
  - Analyze the results of self-assessment questionnaires
- 5. My Education
  - Explore the different levels of training and education available
  - Explore different avenues of training and education
  - Identify different degrees and how they can be obtained
- 6. Self-Assessment Unit Test

#### 3. Career Exploration

1. Career Fields

There are no objectives for this lesson.

- 2. Agriculture, Food and Natural Resources
  - Identify career categories
  - Determine the educational path appropriate for specific types of jobs
- 3. Architecture and Construction
  - Identify career categories and types
  - Determine the educational paths appropriate for specific types of careers
- 4. Arts, A/V Technology, and Communication
  - Identify different categories and career types
  - Determine the educational path appropriate for specific types of jobs
- 5. Business Management and Administration
  - Identify different categories and career types
  - Determine the educational path appropriate for specific types of careers
- 6. Careers in Education and Training
  - Identify different categories and career types
  - Determine the educational paths appropriate for specific types of careers
- 7. Finance
  - Identify career categories and types
  - Determine the educational paths appropriate for specific types of careers
- 8. Government and Public Administration
  - Identify different categories and career types
  - Determine the educational paths appropriate for specific types of careers
- 9. Health Science
  - Identify different categories and career types
  - Determine the educational paths appropriate for specific types of careers
- 10. Hospitality and Tourism
  - Identify different categories and career types within the cluster
  - Determine the educational paths appropriate for specific types of careers
- 11. Human Services
  - Identify different categories and career types
  - Determine the educational paths appropriate for specific types of careers
- 12. Information Technology
  - Identify different categories and career types
  - Determine the educational paths appropriate for specific types of careers
- 13. Law, Public Safety, Corrections and Security
  - Identify different categories and career types
  - Determine the educational paths appropriate for specific types of careers
- 14. Manufacturing
  - Identify categories and career types

- Determine the educational paths appropriate for specific types of careers
- 15. Marketing
  - Identify career research resources
  - Determine the educational path appropriate for specific types of careers
- 16. Science, Technology, Engineering, and Mathematics
  - Identify different categories and career types
  - Determine the educational paths appropriate for specific types of careers
- 17. Transportation, Distribution, and Logistics
  - Identify different categories and career types
  - Determine the educational paths appropriate for specific types of careers
- 18. Entrepreneurial Opportunities
  - Identify entrepreneurial opportunities
- 19. Career Exploration Unit Test

#### 4. Planning Your Future

- 1. Decision-Making
  - Apply the decision-making process to situations in your life
- 2. How to Achieve My Career Goals
  - Identify post-high school education and training options
- 3. Deciding on a Career
  - Identify some career options based upon your personality and desires
- 4. Academic and Career Plan
  - Formulate an academic and career plan
- 5. Planning for the Financial Costs of Education
  - Identify and apply factors to be considered when planning the financial costs of education and other expenses
- 6. Planning Your Future Unit Test

#### 5. Searching for a Job

- 1. The Importance of Goals
  - Identify personal goals
- 2. Developing a Career Pathway
  - Define short-term goal
  - Define long-term goal
  - Differentiate between short-term and long-term goals
  - Identify personal career goal
- 3. What Do I Want From a Job?
  - Identify employer benefits
- 4. How Do I Find a Job?
  - Examine the different options for finding a job
  - Conduct career research
- 5. Applying for a Job
  - Create all application requirements, including a resume and cover letter, for a job in your chosen career
- 6. Writing a Resume
  - Create all application requirements, including a resume and cover letter, for a job in your chosen career
- 7. Preparing a Cover Letter
  - Create all application requirements, including a resume and cover letter, for a job in your chosen career
- 8. Preparing for an Interview
  - Conduct an informational interview and then send a thank you letter

9. Searching for a Job Unit Test

#### 6. Starting a New Job

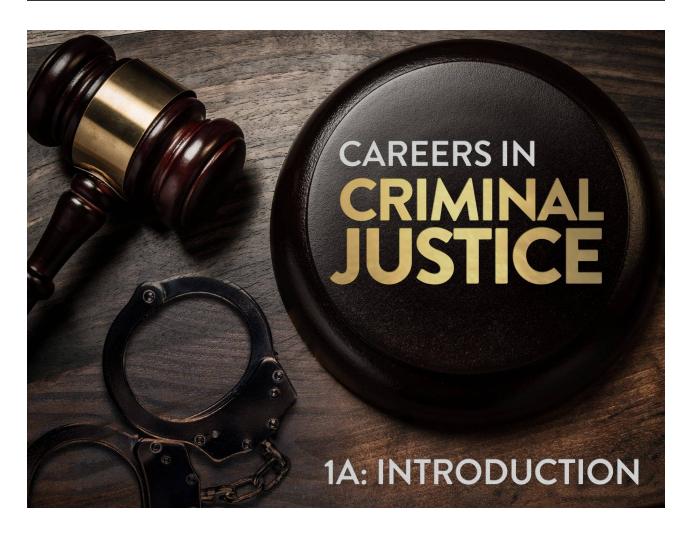
- 1. Being Successful in the Workplace
  - Practice filling out new hire documents
  - Demonstrate knowledge of work place policies and procedures to be successful in the workplace
- 2. Legal and Ethical Issues in the Workplace
  - Recognize discrimination, prejudice, stereotypes, and different forms of harassment
  - Identify the difference between a right and a responsibility
  - Define the purpose of labor laws
- 3. Workplace Policies and Procedures
  - Demonstrate knowledge of work place policies and procedures to be successful in the workplace
- 4. Career Advancement
  - Evaluate ways to stay competitive in a changing workforce
- 5. Starting a New Job Unit Test

#### 7. Workplace Skills

- 1. Teamwork and Communication
  - Recall the 3 Cs of teamwork: communication, commitment, and collaboration
  - Communicate effectively through presentations, letters and electronic communications
- 2. Problem-Solving Skills
  - Recognize and understand a problem from a "big picture" perspective and from the perspective of all involved players
  - Identify how to solve a problem using a ten-step process
- 3. Productivity and Quality in the Workplace
  - Identify how to be productive in the workplace
  - Define ethics and values
- 4. Workplace Skills Unit Test

# Course Syllabus

## What you will learn in this course



### **Careers in Criminal Justice 1a: Introduction**

Have you ever wondered what steps take place as people move through the court system? The criminal justice system is a very complex field that requires dedicated people willing to pursue equal justice for all. Explore different career choices and how the juvenile justice system, the correctional system, and the trial process all work together to maintain social order.

### **Unit 1: Overview of Criminal Justice**

Most people know that when we declared our independence from Britain in 1776, we became a nation of our own. Few people, however, realize that with our newfound freedoms came the burden of responsibility. No longer subject to the laws of the monarchy, early Americans had to come up with a new system of justice. One that would keep our citizens safe from harm. Thus, the criminal justice system in the United States was born. Over the years, the American criminal justice system has undergone many changes, and they continues to adapt to new

challenges and societal demands. In this unit, we will explore the history and purpose of the criminal justice system as well as its many different parts.

## What will you learn in this unit?

- Identify the history and goals of the criminal justice system.
- Discuss how political, moral, and economic concerns lead to the development of laws.
- Describe the history of corrections.
- Describe the parts and functions of the criminal justice system.

UNIT 1 Assignments		
Assignment	Туре	
Unit 1 Critical Thinking Questions	Homework	
Unit 1 Activity 1	Homework	
Unit 1 Activity 2	Homework	
Unit 1 Discussion 1	Discussion	
Unit 1 Discussion 2	Discussion	
Unit 1 Quiz	Quiz	

### Unit 2: History of the Criminal Justice System

We often have a tendency to look back on the past with rose tinted glasses. Things seemed simpler "back then," didn't they? Did crime really have a place in society when our grandparents were young, or when our nation was young, or when human civilization as we know it was just being born? The short answer is: yes! Let's trace the history of crime and criminal justice from our earliest human ancestors up to modern times.

- Understand the factors that influenced crime and punishment in nomadic tribes and early agrarian civilizations
- Compare ancient Roman law and punishment to our current criminal justice system
- Discuss legal documents from early American colonial history
- Detail early American prison reform efforts

• Conduct debate on the causes of crime in American society

Assignment	Туре
Unit 2 Critical Thinking Questions	Homework
Unit 2 Activity 1	Homework
Unit 2 Activity 2	Homework
Unit 2 Activity 3	Homework
Unit 2 Discussion 1	Discussion
Unit 2 Discussion 2	Discussion
Unit 2 Quiz	Quiz

## Unit 3: US Laws: Freedom versus Responsibility

At the very core of the criminal justice system is the law. We know that chaos that would ensue if there were no laws that citizens were expected to abide by. Laws create social order that (ideally) reflect social values. When offenders break the law, they must be punished. But there are so many types of laws and different punishments for violating them! Let's explore different ways to classify laws and crimes and the sentences offenders might receive for violating those laws and committing crimes.

## What will you learn in this unit?

- Identify characteristics of criminal and civil law
- Clarify elements and classifications of crimes
- Distinguish between federal and state laws and local laws and ordinances
- Trace how laws are made
- Discuss rights granted various Constitutional amendments
- Describe criminal law procedures in Florida

### **UNIT 3** Assignments

Assignment	Туре
Unit 3 Critical Thinking Questions	Homework
Unit 3 Activity 1	Homework
Unit 3 Activity 2	Homework
Unit 3 Discussion 1	Discussion
Unit 3 Discussion 2	Discussion
Unit 3 Quiz	Quiz

#### **Unit 4: Introduction to Careers in Criminal Justice**

When deciding which criminal justice career path to go down, you'll need to look into several different factors, including the projected growth, what education is required, the duties of this role, and how much money you'll expect to make. You will also want to take an inventory of your personal characteristics and determine which position is your "best fit." For example, if you are a compassionate person and love to help people who are trying to get their lives back on track, you might consider becoming a probation or parole officer. If you're more analytical and like to solve a good mystery, a career as a forensic scientist might be a better fit. Whatever you do, you'll want to do it with passion and strong ethics. Because after all, the whole point of the justice system is to stop the offending while protecting one and all!

#### What will you learn in this unit?

- Identify and describe career opportunities in the criminal justice system
- Examine the job duties and skills needed to excel in specific roles
- Consider the prerequisites for job entry into the criminal justice system
- Explore the salary expectations for entry level positions in the criminal justice system

UNIT 4 Assignments	
Assignment	Туре
Unit 4 Critical thinking Questions	Homework
Unit 4 Activity 1	Homework
Unit 4 Activity 2	Homework

Appendices page 2409 Pennwood Cyber Charter School

Unit 4 Discussion 1	Discussion
Unit 4 Discussion 2	Discussion
Unit 4 Quiz	Quiz

### **Careers in Criminal Justice 1a Midterm Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the **first** half of the course (Note: You will be able to open this exam only one time.)

MIDTERM Assignments	
Assignment	Туре
Midterm Exam	Exam
Midterm Discussion	Discussion

#### Unit 5: Inside the Courtroom

Are you poised to enter a career in criminal justice? Maybe. But either way, all United States citizens may also interact with the criminal justice system when they are called to participate in jury duty. Understanding how a courtroom functions, by focusing on various court structures, each step of a trial process, and the roles and responsibilities of those involved, you will prepare yourself for to enter the criminal justice field, either as a professional or as a civil servant on jury duty. What's involved? We'll meet the people you'll run into in a courtroom and take a look at courtroom demeanor, as well as take part in a mock trial. You may proceed!

## What will you learn in this unit?

- Describe the people in a courtroom
- Evaluate the pretrial process
- Discuss the parts of a trial
- Consider various post trial processes and sentences
- Differentiate between the roles and responsibilities of the people involved in the trial processes
- Determine appropriate courtroom demeanor and participate in a mock trial

Appendices page 2410 Pennwood Cyber Charter School

## **UNIT 5** Assignments

Assignment	Туре
Unit 5 Critical Thinking Questions	Homework
Unit 5 Activity 1	Homework
Unit 5 Activity 2	Homework
Unit 5 Discussion 1	Discussion
Unit 5 Discussion 2	Discussion
Unit 5 Quiz	Quiz

## **Unit 6: The Juvenile Justice System**

Did you know that kids as young as seven used to be sentenced and imprisoned right alongside adults? Up until the Industrial Revolution, young children and teens were subjected to cruel and unusual punishments. While some young offenders are still tried in adult courts today, most young people who run into trouble with the law are dealt with by the juvenile justice system. There are several key differences between the juvenile justice system and the criminal justice system, but it wasn't always this way. By recognizing those differences and looking at how judges and courts have shaped today's juvenile justice system, we learn more about how to help at risk youth avoid the cycle of the adult justice system.

- Review the history of the juvenile justice system in the United Systems
- Identify the programs and agencies within the juvenile justice system and describe their roles and responsibilities
- Determine law enforcement procedures related to juvenile delinquency
- Analyze current trends in juvenile justice
- Discuss Florida's juvenile court system, including procedures and alternative programs

UNIT 6 Assignments	
Assignment	Туре

Unit 6 Critical Thinking Questions	Homework
Unit 6 Activity 1	Homework
Unit 6 Activity 2	Homework
Unit 6 Discussion 1	Discussion
Unit 6 Discussion 2	Discussion
Unit 6 Quiz	Quiz

#### **Unit 7: Correctional Facilities**

Do you know what happens to a convicted criminal after they are handcuffed and escorted out of the courtroom? Not many people are aware of the reality of prison life. Even the shows that are centered around those who are "locked up" are filled with misinformation. Instead of relying on these types of shows, let's explore the types of correctional facilities employed by the US criminal justice system. We will also investigate the programs and procedures that seek to punish and rehabilitate prisoners and how these compare to systems of the past. You'll have the opportunity to evaluate the philosophy behind controversial ethical practices and decide for yourself which facilities and strategies are effective, and which do more harm than good.

### What will you learn in this unit?

- Differentiate between local, state, and federal correctional systems
- Compare and contrast different types of prison and community based programs
- Identify major correctional operations procedures and programs
- Debate issues concerning the rights of inmates
- Understand correctional reform and the responsibilities of correctional officers

UNIT 7 Assignments	
Assignment	Туре
Unit 7 Critical Thinking Questions	Homework
Unit 7 Activity 1	Homework
Unit 7 Activity 2	Homework
Unit 7 Activity 3	Homework

Appendices page 2412 Pennwood Cyber Charter School

Unit 7 Discussion 1	Discussion
Unit 7 Discussion 2	Discussion
Unit 7 Quiz	Quiz

### **Unit 8: People Skills in Criminal Justice**

In the high risk field of law enforcement, people skills could literally make the difference between life and death for both officer and suspect. As is probably clear by now, it takes a special kind of person to choose to enter the criminal justice field and to carry out the duties of their role well. These careers require a unique skill set, including specialized interpersonal and personal skills. Because the men and women in these roles interact with the public daily in an attempt to protect the safety of individuals, apprehend criminals, and investigate crimes, a high level of social intelligence and the ability to communicate effectively with others is critical. The good news is that even if you have decided that a career in criminal justice is not for you, you still stand to benefit from the things we'll discuss here. After all, employability skills are requirements for anyone who wants to be successful in finding and keeping a job of any kind!

#### What will you learn in this unit?

- Recognize personal traits that help one succeed in the criminal justice field
- Apply strategies for working well with others
- Consider personal stressors and evaluate methods for resolution
- Plan solutions for situations that require crisis management and conflict resolution
- Identify the interpersonal skills, work habits, and ethics necessary for ongoing employment in an environment of human diversity

UNIT 8 Assignments		
Assignment	Туре	
Unit 8 Critical Thinking Questions	Homework	
Unit 8 Activity 1	Homework	
Unit 8 Activity 2	Homework	
Unit 8 Discussion 1	Discussion	
Unit 8 Discussion 2	Discussion	

Appendices page 2413 Pennwood Cyber Charter School

Unit 8 Quiz Quiz

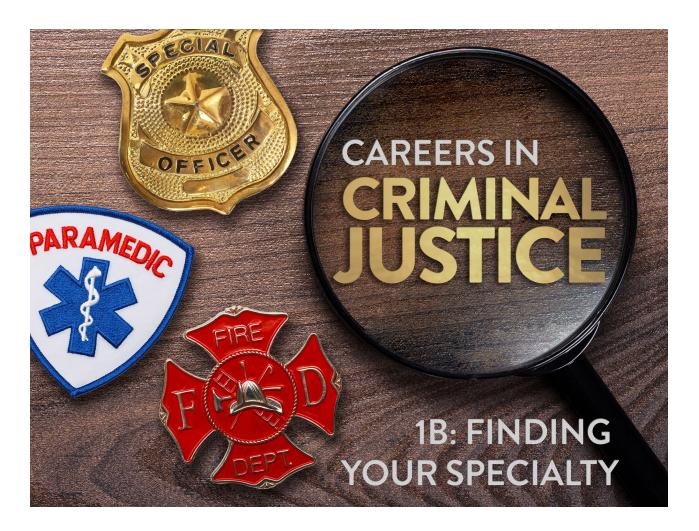
## **Careers in Criminal Justice 1a Final Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the **second** half of the course (Note: You will be able to open this exam only one time.)

FINAL Assignments	
Assignment	Туре
Final Exam	Exam
Final Exam Discussion	Discussion

# Course Syllabus

## What you will learn in this course



## Careers in Criminal Justice 1b: Finding Your Specialty

Have you ever thought about a career as a police officer, an FBI or DEA agent, or any occupation that seeks to pursue justice for all? Careers in criminal justice can be found at local, county, state, federal, and international levels, and even in the private sector. Explore some of the various occupations in this field through this course, while simultaneously learning how they interact with each other and other first responders.

Discover important aspects of criminal justice careers, such as implementing interviewing techniques, collaborating with other agencies and departments, cooperating with global partners, and communicating with various audiences. All of these tasks are completed while understanding the importance of ethical decision making in criminal justice. It is important to know and have the character required to know the difference between right and wrong to be successful in this field. If a career in criminal justice is something you hope to pursue, the course ends with some helpful information for finding employment in criminal justice.

Appendices page 2415 Pennwood Cyber Charter School

### **Unit 1: The Role of Private Security**

Since the beginning of time, people have been looking for unique ways to protect themselves and their property. But believe it or not, government funded police forces have only fulfilled that role for a short portion of our history! From something called the Pinkerton Agency to the Secret Service, private security is an integral part of American history.

#### What will you learn in this unit?

- 1. Compare and contrast public security agents to private security workers
- 2. Recall the history of private security in both ancient and modern societies
- 3. Identify career opportunities available in private security and their responsibilities
- 4. Characterize special investigative units such as the Secret Service and its role in security

# **UNIT 1** Assignments

Assignment	Туре
Unit 1 Critical Thinking Questions	Homework
Unit 1 Activity 1	Homework
Unit 1 Activity 2	Homework
Unit 1 Discussion 1	Discussion
Unit 1 Discussion 2	Discussion
Unit 1 Quiz	Quiz

#### **Unit 2: Other Roles in Criminal Justice**

If you're interested in the criminal justice field but don't plan on working patrol, don't fret. There are many different jobs and career progression opportunities that will allow you to work in a field you'll enjoy without having to go a traditional route. From border security chaplains to aviation enforcement agents, who knew that so many criminal justice roles existed?

- 1. Summarize the role of a SWAT team member
- 2. Analyze similarities and differences between detectives and private investigators
- 3. Understand the different roles and responsibilities of the US Border Security and its divisions

4. Recall the purpose of the United States Drug Enforcement Agency (DEA)

UNIT 2	Assignments
--------	-------------

Assignment	Туре
Unit 2 Critical Thinking Questions	Homework
Unit 2 Activity 1	Homework
Unit 2 Activity 2	Homework
Unit 2 Discussion 1	Discussion
Unit 2 Discussion 2	Discussion
Unit 2 Quiz	Quiz

## Unit 3: Working with Medical Emergency and Fire Departments

EMS and fire service play important roles in keeping communities safe across the nation. Choosing a career in either of these fields requires training and certification, and students who wish to pursue these careers can join several agencies and organizations to prepare them for these careers. Overall, public agencies such as fire, EMS, police, court corrections, and security systems must work together to ensure communities are safe for the families that populate them.

### What will you learn in this unit?

- 1. Describe the role of emergency medical services in public safety
- 2. Explain the duties and responsibilities of firefighters
- 3. Research and participate in community and student organizations
- 4. Examine the roles and responsibilities of first responders

## **UNIT 3** Assignments

Assignment	Туре
Unit 3 Critical Thinking Questions	Homework
Unit 3 Activity 1	Homework

Unit 3 Activity 2	Homework
Unit 3 Discussion 1	Discussion
Unit 3 Discussion 2	Discussion
Unit 3 Quiz	Quiz

### Unit 4: Global Perspective: Collaborating with INTERPOL

INTERPOL operating on a global basis is one of the most important aspects of international public safety. These special agents are responsible not only for helping catch criminals but also for providing valuable resources to member countries' law enforcement departments to help fight international crime. This organization comes from a long history of technological advancements, status changes, and more. Overall, a career in INTERPOL is a rewarding and meaningful one.

#### What will you learn in this unit?

1. Explain the goal of INTERPOL

Unit 4 Quiz

- 2. Describe the history of INTERPOL
- 3. Discuss the different job roles that exist within INTERPOL
- 4. Identify how INTERPOL collaborates with law enforcement agencies to stop international crime

UNIT 4 Assignments	
Assignment	Туре
Unit 4 Critical Thinking Questions	Homework
Unit 4 Activity 1	Homework
Unit 4 Activity 2	Homework
Unit 4 Discussion 1	Discussion
Unit 4 Discussion 2	Discussion

Quiz

## **Careers in Criminal Justice 1b Midterm Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the **first** half of the course (Note: You will be able to open this exam only one time.)

MIDTERM Assignments	
Assignment	Туре
Midterm Exam	Exam
Midterm Discussion	Discussion

### **Unit 5: Spotlight on Interrogation**

Interrogation plays an important role in law enforcement. When used correctly, it has the potential to develop relationships and solve crimes. In order for this process to be productive, police officers must build rapport with their communities and use effective communication techniques. When executed properly, interviews and interrogations will assist law enforcement in the pursuit of the truth and help avoid wrongful convictions.

- 1. Describe interview techniques used by law enforcement
- 2. Determine how establishing rapport can benefit police officers in their jobs
- 3. Explain how police officers effectively communicate with suspects and inmates
- 4. Identify elements of wrongful conviction and resources for victims of wrongful conviction

UNIT 5 Assignments		
Assignment	Туре	
Unit 5 Critical Thinking Questions	Homework	
Unit 5 Activity 1	Homework	
Unit 5 Activity 2	Homework	
Unit 5 Discussion 1	Discussion	
Unit 5 Discussion 2	Discussion	

Unit 5 Quiz	Quiz

### **Unit 6: Evaluating Ethics in Criminal Justice Systems**

Ethics is an important part of the criminal justice system because the actions people take ensure that members abide by the moral obligation of their role. They make daily decisions that need to be fair and equal to all. It is also important to understand how the public is protected by laws, regulations, and policies when members of the criminal justice system act unethically. But these aren't the only ethical considerations involved in the criminal justice system. We will also look at the death penalty, solitary confinement, and the incarceration of elderly individuals.

#### What will you learn in this unit?

- 1. Discuss both perspectives of common ethical quandaries in the criminal justice field such as the death penalty or solitary confinement
- 2. Understand the codes of ethics for the criminal justice system and specifically law enforcement officers
- 3. Explain laws, regulations, and policies that govern criminal justice professionals
- 4. Analyze how constitutional laws impact law enforcement officials and their actions

UNIT 6 Assignments		
Assignment	Туре	
Unit 6 Critical Thinking Questions	Homework	
Unit 6 Activity 1	Homework	
Unit 6 Activity 2	Homework	
Unit 6 Discussion 1	Discussion	
Unit 6 Discussion 2	Discussion	
Unit 6 Quiz	Quiz	

#### **Unit 7: Communication in Criminal Justice**

You've probably heard a police officer say, "10 4" or spell out a name or address such as "Nora Ida Charles King." Why do they do this? And what does it mean? Nearly all career fields have their own languages, so to speak, and the field of criminal justice is no exception. Although good

verbal and nonverbal communication skills can be helpful in almost any line of work, there are specific communication skills, vocabulary, and even special "codes" necessary for success in criminal justice. We will look at many of the skills and special equipment that law enforcement officers and others in the criminal justice field need to do their jobs efficiently and effectively.

#### What will you learn in this unit?

- 1. Explain the purpose and demonstrate the use of communication codes and the phonetic alphabet
- 2. Describe different equipment and protocols used by law enforcement officers to communicate with each other and the public
- 3. Identify communication and jurisdictional problems that may arise as multiple agencies work together
- 4. Identify the unique interpersonal skills required in communicating with inmates, coworkers, and the general public

UNIT 7 Assignments		
Assignment	Туре	
Unit 7 Critical Thinking Questions	Homework	
Unit 7 Activity 1	Homework	
Unit 7 Activity 2	Homework	
Unit 7 Discussion 1	Discussion	
Unit 7 Discussion 2	Discussion	
Unit 7 Quiz	Quiz	

### **Unit 8: Finding Employment in Criminal Justice**

There are many job opportunities available in the criminal justice system for those who are interested in the field and willing to do what is required to earn the necessary qualifications. We'll discuss the steps one needs to take in order to prepare for, locate, evaluate, and apply to job opportunities in this competitive job arena. But simply landing the job isn't the end of this process. You'll also need to think about what it takes to be a good employee and what to do if you decide to change career fields in the future.

### What will you learn in this unit?

- 1. Identify sources of information for employment and training opportunities and career options in the field of criminal justice
- 2. Conduct a job search and identify the training, experience, and other qualifications required for different positions
- 3. Complete a job application, resume, and cover letter
- 4. Apply effective job interview techniques
- 5. Describe how to make job changes appropriately

UNIT 8 Assignments	
Assignment	Туре
Unit 8 Critical Thinking Questions	Homework
Unit 8 Activity 1	Homework
Unit 8 Activity 2	Homework
Unit 8 Activity 3	Homework
Unit 8 Discussion 1	Discussion
Unit 8 Discussion 2	Discussion
Unit 8 Quiz	Quiz

### **Careers in Criminal Justice 1b Final Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the **second** half of the course (Note: You will be able to open this exam only one time.)

FINAL Assignments	
Assignment	Туре
Final Exam	Exam
Final Exam Discussion	Discussion



#### **College Prep with ACT**

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

#### **Course Summary:**

This course will help the student navigate through the Shmoop ACT Exam Prep Web site, access two full ACT® practice tests, and learn the necessary skills in order to take the ACT test. This course also includes several lessons on other critical aspects of preparing for college, including developing a college resume, writing effective personal essays, and requesting letters of recommendation.

This course is intended to prepare the student to take the ACT test. As the student works through the course, he will focus on learning more about his strengths and weaknesses as well as learn test-taking strategies that are specific to the ACT test. That way, when the student takes the actual test, the scores will be a good representation of the student's abilities.

Finally, the student will submit a College Planning Portfolio, which will reflect the areas for improvement that the student has identified throughout this course.

#### **Course Outline**

#### 1. College Prep with ACT

- 1. Preparing for College: Follow Your Dreams
  - Begin to document your strengths, interests, talents, and goals
  - Begin researching colleges and universities
- 2. Introduction to the ACT & Diagnostic Testing
  - Take diagnostic tests to assess current abilities
  - Research ACT test registration information
- 3. Preparing for College: Official Transcripts
  - Examine the features of transcripts and fully understand what they mean
  - Relate transcript information to the college admissions process
  - Review academic coursework to determine college readiness
- 4. College Readiness Standards
  - Document and analyze current areas of academic strength and weakness
- ACT Practice Test: English
  - Take practice test to assess current English knowledge and abilities

- Review ways to improve English content knowledge and abilities
- 6. Preparing for College: Resumes & Recommendations
  - Learn how to craft a résumé
  - Draft and revise your résumé
  - Begin documenting your achievements in résumé form
  - Learn how to obtain appropriate letters of recommendation
- 7. ACT Practice Test: Math
  - Review practice test questions and answers to develop content knowledge and abilities
  - Review ways to improve mathematics skills
- 8. ACT Practice Test: Reading
  - Review reading content areas and test-taking strategies
  - Analyze areas of academic strength and weakness
- 9. ACT Practice Test: Writing
  - Take practice test to assess current writing abilities
  - Review ways to improve writing abilities
- 10. ACT Practice Test: Science
  - Take practice test to assess current science knowledge and abilities
  - Review ways to improve science content and knowledge
- 11. Preparing for College: The Application Essay
  - Become familiar with the essential components of the college application essay
- 12. Take the Online Timed ACT Practice Test
  - Practice taking the ACT test under timed conditions
  - Review and analyze test results
  - Develop strategies for improving test scores
- 13. Preparing for College: Face-to-Face Interviews
  - Learn about and practice interview techniques and strategies
  - Understand what a good "fit" for college means to you
- 14. Preparing for College: Financial Aid
  - Become familiar with financial aid terminology and process
  - Start to research financial aid options
- 15. Create Your College Planning Portfolio
  - Create a College Planning Portfolio to fully prepare for taking the ACT



#### **College Prep with SAT**

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

#### **Course Summary:**

This course will help the student navigate through the Official SAT Practice on the Khan Academy website, access four full SAT practice tests and multiple practice quizzes, and learn the necessary skills in order to be well-prepared to take the SAT test. This course also includes several lessons on other critical aspects of preparing for college, including developing the college resume, writing effective personal essays, and requesting letters of recommendation.

This course is intended to prepare the student to take the SAT test. As the student works through the course, he will focus on learning more about his strengths and weaknesses as well as learn test-taking strategies that are specific to the SAT test. That way, when the student takes the actual test, the scores will be a good representation of the student's abilities.

Finally, the student will submit a College Planning Portfolio, which will reflect the areas for improvement that the student has identified throughout this course.

#### **Course Outline**

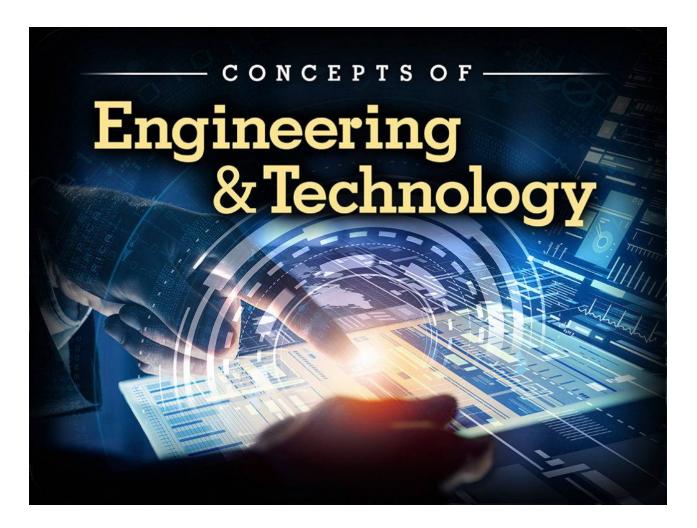
#### 1. College Prep with SAT

- 1. Preparing for College: Follow Your Dreams
  - Begin to document your strengths, interests, talents, and goals
  - Begin researching colleges and universities
- 2. Introduction to the SAT & Pretest
  - Set up your access to the Official SAT Practice from the Khan Academy website
  - Assess your SAT test preparedness by taking the diagnostic quizzes
- 3. Preparing for College: Official Transcripts
  - Examine the features of transcripts and fully understand what they mean
  - Relate transcript information to the college admissions process
  - Review academic coursework to determine college readiness
- 4. About the SAT and How to Do Your Best
  - Increase your familiarity with the SAT test
  - Review your SAT pretest results to improve content area knowledge
- 5. SAT Critical Reading

- Improve your critical reading abilities through completion of SAT practice activities and personal reflection.
- Make journal entries to focus learning
- 6. Preparing for College: Résumés & Recommendations
  - Learn how to craft a résumé
  - Draft and revise your résumé
  - Begin documenting your achievements in résumé form
- 7. SAT Writing & Language
  - Improve writing and reading skills through completion of the Reading & Writing practice
  - Make journal entries to focus learning
- 8. SAT Math
  - Improve your mathematical abilities by completing practice questions and reviewing answers
  - Make journal entries to focus learning
- 9. SAT Full-Length Timed Practice Test 1
  - Take the full-length timed SAT test to be better prepared for taking the actual SAT test
  - Understand how the practice test is different from the actual SAT test
- 10. SAT Practice Test 1: Review Answers
  - Improve content area knowledge by reviewing answers to the practice SAT test
  - Make journal entries to focus learning
- 11. Preparing for College: The Application Essay
  - Become familiar with the essential components of the college application essay
- 12. SAT Full-length Timed Practice Test 2
  - Take a second full-length timed SAT practice test to prepare for taking the actual SAT test
  - Analyze your progress by comparing scores
  - Make journal entries focused on college admissions planning
- 13. Preparing for College: Face-to-Face Interviews
  - Learn about and practice interview techniques and strategies
  - Understand what a good "fit" for college means to you
- 14. Preparing for College: Financial Aid
  - Become familiar with financial aid terminology and process
  - Start to research financial aid options
- 15. Create Your Personal Improvement Plan
  - Create a College Planning Portfolio to fully prepare for taking the actual SAT test

# Course Syllabus

## What you will learn in this course



### Concepts of Engineering and Technology

Each day, we are surrounded by technology and engineering projects. From our phones to the bridges we drive over, engineering and technology influence many parts of our lives. In Concepts of Engineering and Technology, you will learn more about engineering and technology careers and what skills and knowledge you'll need to succeed in these fields. You'll explore innovative and cutting-edge projects that are changing the world we live in and examine the design and prototype development process. Concepts of Engineering and Technology will also help you understand the emerging issues in this exciting career field.

## Unit 1: Development and Understanding of Engineering

Have you ever wondered how civilization continues to design, build, and improve machines and structures around the world? Looking at the skyline of any major city, you can see a crazy number of tall buildings, lengthy bridges, and engines purring under endless equipment. We all know

Appendices page 2427 Pennwood Cyber Charter School

these inventions are critical to our modern way of life, yet we don't always understand the knowledge required to create such innovation. Have you ever peered up at a towering skyscraper and marveled at the mere impossibility of it? It is, in fact, not only possible but also just part of a day's work for an engineer. In this course, you'll be exploring the various fields of this occupation, its history, the important role it plays in human life, and the ethical issues related to engineering. So buckle up; here we go!

#### What will you learn in this unit?

- Distinguish the differences between science, technology, and engineering
- Understand and use technical terms
- Discuss important technological developments from the past
- Identify the various technological ages and the rate of current development
- Discuss some of the ethical concerns around technology

UNIT 1 Assignments	
Assignment	Туре
Unit 1 Critical Thinking Questions	Homework
Unit 1 Lab	Homework
Unit 1 Activity	Homework
Unit 1 Discussion 1	Discussion
Unit 1 Discussion 2	Discussion
Unit 1 Quiz	Quiz

### **Unit 2: Making Problems into Ideas**

It's easy to identify a problem but not always as easy to figure out a solution. An engineer's job is to take pesky things like problems and apply a functional process that will eventually result in a technological solution. That problem-solving process involves a series of important steps, steps that are imperative for success. Understanding these techniques is critical for an engineer, as is knowing the differences among the various technological systems that aid in the process. You could say that an engineer has a sizeable toolbox of strategies at his disposal. This unit will explain those tools and how they can best be used on the job. It will also help you to develop your own process through the development of an engineering notebook.

#### What will you learn in this unit?

- Discuss open and closed systems
- Identify how technological systems interact to achieve goals
- Find technological solutions through problem solving
- Design and maintain a computation engineering notebook

UNIT 2 Assignments	
Assignment	Туре
Unit 2 Critical Thinking Questions	Homework
Unit 2 Lab	Homework
Unit 2 Activity	Homework
Unit 2 Discussion 1	Discussion
Unit 2 Discussion 2	Discussion
Unit 2 Quiz	Quiz

#### **Unit 3: From Sketches to Products**

As an engineer, you will likely find yourself in a situation where you know exactly what you want to build, but the only problem is your ideas are stuck in your head. Finding a way to express ideas and bring them to fruition is a challenge, even for an engineer, and understanding the design process is a critical part of the course of action. Obviously, designing something requires that you also have a firm grasp on the materials needed and how they are characterized within an experiment. Simply put, this means engineers must conceptualize their goals while remembering the pragmatic elements required to achieve them. How can I get what I want with what I have? Working out a design process is a balancing act between the creative and the scientific worlds. Having a vision is essential, but understanding the reality of how to achieve that vision is equally important. You can't have one without the other.

- Describe the fundamental processes needed for a project, including design and prototype development
- Identify the chemical, mechanical, and physical properties of engineering materials

- Assess risks and benefits of a design solution
- Maintain a professional portfolio

## **UNIT 3** Assignments

Assignment	Туре
Unit 3 Critical Thinking Questions	Homework
Unit 3 Lab	Homework
Unit 3 Activity	Homework
Unit 3 Discussion 1	Discussion
Unit 3 Discussion 2	Discussion
Unit 3 Quiz	Quiz

## **Unit 4: Civil Engineering**

Are you a practical person? Do you like to see things running smoothly and efficiently? Do you worry about systems that break down and create problems? If the answers are yes, you may want to learn more about civil engineering, a field that focuses on precisely these issues in the real world. The world is filled with roads, buildings, airports, tunnels, dams, bridges, and water supply systems. The world needs a qualified person to design, build, supervise, operate, and maintain these things. And as we all know, these "things" are not negotiable. They must be supported with ideas and hard work to keep our society chugging along and, in some cases, sprinting along as we continue to evolve into an increasingly accelerated species. Civil engineering is arguably the oldest discipline in this field, dating back to 3000 BCE, and definitely one of the most pragmatic. I mean, if you don't have a roof over your head, what do you have?

## What will you learn in this unit?

- Work in teams to apply the design process
- Assume different roles within an engineering project
- Develop and test a project model
- Use time-management skills to meet project objectives
- Use criteria to meet project expectations
- Describe and demonstrate team functions, quality, and requirements

Appendices page 2430 Pennwood Cyber Charter School

5/18/22, 1:09 PM Print Test

<b>UNIT 4</b>	Assig	nments
---------------	-------	--------

Assignment	Туре
Unit 4 Critical Thinking Questions	Homework
Unit 4 Lab	Homework
Unit 4 Activity	Homework
Unit 4 Discussion 1	Discussion
Unit 4 Discussion 2	Discussion
Unit 4 Quiz	Quiz

## Concepts of Engineering & Technology Midterm Exam

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the first four units in this course (Note: You will be able to open this exam only one time.)

MIDTERM Assignments	
Assignment	Туре
Midterm Exam	Exam
Midterm Discussion	Discussion

## **Unit 5: Mechanical Engineering**

Were you one of those kids who liked to take things apart or, more truthfully, break them to see what was inside? Did you pull the wings off your new mechanical toy butterfly to examine how they were attached? Maybe you even managed to put it back together. These preoccupations with machinery and its secrets are also the wonderings of a mechanical engineer. How does this broad field really function? And exactly what type of engineer does it require? A mechanical engineer has a large, albeit sometimes unusual, scope of interests and plays an integral part in the running of the modern world. So maybe the kid taking the remote control apart instead of watching the actual television is on her or his way to an exciting career as a mechanical engineer.

#### What will you learn in this unit?

- Define and describe the applications of physical and mechanical systems
- Describe various career opportunities and emerging issues within these fields
- Explain the history of mechanical engineering and its current trajectory
- Apply design concepts to problems in physical and mechanical systems

UNIT 5 Assignments	
Assignment	Туре
Unit 5 Critical Thinking Questions	Homework
Unit 5 Lab	Homework
Unit 5 Activity	Homework
Unit 5 Discussion 1	Discussion
Unit 5 Discussion 2	Discussion
Unit 5 Quiz	Quiz

### **Unit 6: Chemical Engineering**

If there's one word to remember today, it's creation! Creation is everything; creation is life. It's awesome to study and understand the natural world through science or identify the makeup of different substances through the wonders of chemistry; however, what does it take to use both of the disciplines of chemistry and engineering to create something entirely new? Something that can improve human life, feed the planet, save lives, and change the face of reality? As you will soon find out, it takes a chemical engineer. Chemical engineering, an incredibly complex and challenging field of engineering, is particularly exciting because of its relationship to substances and conceptualizing how they can be used to form new ones. A chemical engineer not only has to understand science, mathematics, and chemistry but must also have the skills to funnel all that knowledge into the alchemy of any entirely new and innovative result. And voilà! Now you have creation, the essence of chemical engineering and the very essence of life.

- Describe applications of process control and automation systems
- Describe career opportunities in process control and automation systems

- Apply design concepts and identify fields related to process control and automation systems while identifying emerging issues
- Understand and follow safety tests and guidelines while recognizing how to classify and dispose of hazardous materials and waste

UNIT 6 Assignments	
Assignment	Туре
Unit 6 Critical Thinking Questions	Homework
Unit 6 Lab	Homework
Unit 6 Activity 1	Homework
Unit 6 Activity 2	Homework
Unit 6 Discussion 1	Discussion
Unit 6 Discussion 2	Discussion
Unit 6 Quiz	Quiz

## **Unit 7: Biological Engineering**

If you consider healing the world a worthwhile endeavor, then you have the spirit of a bioengineer. Nature is filled with different materials under the ground, in the sky, and far down in the murky depths of the sea. Learning how to use these organisms is key to this evolving world of discovery. The natural world continues to provide many priceless resources that we are free to use at our discretion; however, we must remember to remain ethical and thoughtful in this process so as not to deplete the world and ourselves. Unlike chemical engineering, which creates synthetic materials through nature, bioengineers simply use the materials of the earth to generate what is needed to improve human life. Just remember: biology + engineering = bioengineering. Bioengineers are the naturalists of the engineering world and some of the most effective innovators of our time.

- Describe the different fields of biotechnology
- Identify the underlying principles of bioengineering
- Understand career opportunities, related fields, and emerging trends in biotechnology
- Apply design concepts to problems in biotechnology

Discuss inherent ethical dilemmas in bioengineering and technology

UNIT 7 Assignments	
Assignment	Туре
Unit 7 Critical Thinking Questions	Homework
Unit 7 Lab	Homework
Unit 7 Activity 1	Homework
Unit 7 Activity 2	Homework
Unit 7 Discussion 1	Discussion
Unit 7 Discussion 2	Discussion
Unit 7 Quiz	Quiz

### **Unit 8: Impossible Engineering!**

Thinking back on all the incredible challenges engineers have overcome in their profession, it's easy to be positively astonished by the amount of innovation the world has seen. Rarely do people have the ability to predict the future, yet engineers have proved time and time again that wild dreams can eventually become reality. Looking back at all the awe-inspiring engineering developments over the years and remembering that at one time they too seemed impossible, it's safe to say society is likely in store for a lot of surprising advancements in the next hundred years. What are the areas engineers hope to develop during the 21st century? How will society look as a result? Engineers may have a lot of tools in their toolboxes, but the word impossible is definitely not one of them.

#### What will you learn in this unit?

- Define impossible engineering
- Conduct and present research on emerging and innovative technology
- Describe ethical behavior and decision making through the use of examples
- Differentiate among discrimination, harassment, and equality

## **UNIT 8** Assignments

Assignment	Туре
Unit 8 Critical Thinking Questions	Homework
Unit 8 Lab	Homework
Unit 8 Activity	Homework
Unit 8 Discussion 1	Discussion
Unit 8 Discussion 2	Discussion
Unit 8 Quiz	Quiz

# **Concepts of Engineering & Technology Final Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from units five to eight in this course the last four units. (Note: You will be able to open this exam only one time.)

FINAL Assignments	
Assignment	Туре
Final Exam	Exam
Final Exam Discussion	Discussion

# Course Syllabus

## What you will learn in this course



#### **COSMETOLOGY 1: CUTTING EDGE STYLES**

Interested in a career in cosmetology? This course provides an introduction to the basics of cosmetology. Students will explore career options in the field of cosmetology, learn about the common equipment and technologies used by cosmetologists, and examine the skills and characteristics that make someone a good cosmetologist. Students will also learn more about some of the common techniques used in caring for hair, nails, and skin in salons, spas, and other cosmetology related businesses.

## **Unit 1: Introduction to Cosmetology**

Students are introduced to the cosmetology field in this unit, including the specialization within the profession and current global trends in the industry. They will also learn the required training, licensing, and certifications for the various specializations and where to acquire them, as well as the kinds of careers and employment opportunities available in the field.

Appendices page 2436 Pennwood Cyber Charter School

#### What will you learn in this unit?

- Explain current trends in the cosmetology industry
- Discuss various careers in the cosmetology field
- Define growth and trends within the cosmetology industry
- Identify employment opportunities, including entrepreneurship, and preparation requirements in the field of cosmetology services
- Investigate technical knowledge and skills required to be successful in careers in the personal care services area

UNIT 1 Assignments	
Assignment	Туре
Unit 1 Critical Thinking Questions	Homework
Unit 1 Project 1	Homework
Unit 1 Project 2	Homework
Unit 1 Discussion 1	Discussion
Unit 1 Discussion 2	Discussion
Unit 1 Quiz	Quiz

## **Unit 2: Basic Biology for Cosmetologists**

Cosmetology is all about the body, so it is time to learn basic anatomy. While providing an overview of the major systems of the human body, this unit details the parts of the body that cosmetologists spend the majority of their time grooming, including hair, skin, and nails. Understanding the components of tissue and cells helps cosmetologists tell the difference between healthy hair, skin, and nails and those that need further treatment or indicate health problems. There has always been a relationship between cosmetology and health, as will be explained in this unit. Finally, this unit will explore how some simple home beauty treatments have a noticeable effect on the body.

- Recognize and identify the major systems in the human body
- Identify principles of biology, tissues, and cells to provide and select safe and effective personal care products and services

- Recognize and identify principles of human anatomy to classify areas of potential problems in order to provide needed personal care services
- Discuss the relationship between cosmetology and medicine
- Prepare some healthy beauty treatments and understand why they work

UNIT 2 Assignments	
Assignment	Туре
Unit 2 Critical Thinking Questions	Homework
Unit 2 Lab	Homework
Unit 2 Project 1	Homework
Unit 2 Project 2	Homework
Unit 2 Discussion 1	Discussion
Unit 2 Discussion 2	Discussion
Unit 2 Quiz	Quiz

## **Unit 3: Standards and Safety**

Now that you understand some basic biology, this unit will identify the steps that cosmetologists need to take to keep their clients safe and healthy. Not only is this important for the clients, it is also the law. Salons need to maintain excellent health and safety records to stay in business, and cosmetologists are the ones who define these records. Students will know and understand the governing policies and the proper procedures for maintaining a safe and sanitary environment as well as the different levels of cleaning and their uses. This unit prepares students for a career in cosmetology by providing background on the hazards of the industry for both clients and employees and cosmetologists' responsibilities when it comes to health and safety.

- Demonstrate knowledge of the rules and regulations established by the governing body and industry standards
- Identify and practice emergency policies and procedures regarding health and safety to achieve a safe and healthy environment at all times
- Recognize risks and potentially hazardous situations to maintain a clean safety record when providing personal care services

- Differentiate among types of cleaning and their uses
- Identify appropriate agencies and sources for health and safety information in the cosmetology field

UNIT 3 Assignments	
Assignment	Туре
Unit 3 Critical Thinking Questions	Homework
Unit 3 Project 1	Homework
Unit 3 Project 2	Homework
Unit 3 Discussion 1	Discussion
Unit 3 Discussion 2	Discussion
Unit 3 Quiz	Quiz

## **Unit 4: Legal and Ethical Standards**

You have learned a lot about safety and how to keep yourself, clients, and coworkers healthy, and now it is time to consider ethical and legal responsibilities. Now it is time to explore professional standards and ethics, how they are defined in the workplace, and specific issues that are particularly relevant to those in the cosmetology field. This unit will also define the concept of legal liability and how that shapes job performance, especially when working with the public. Professionalism is an important part of success in this industry, and this unit defines what that looks like for those interested in a cosmetology career.

## What will you learn in this unit?

- Explain the concepts and skills of the profession in simulated and actual work situations
- Define the elements of professional presentation
- Model ethical and legal conduct while working in the human services industry
- Recognize ethical violations in the workplace
- Demonstrate actions that comply with legal requirements for personal liability to guide personal conduct in the human services setting

Appendices page 2439 Pennwood Cyber Charter School

UNIT 4 Assignments	
Assignment	Туре
Unit 4 Critical Thinking Questions	Homework
Unit 4 Lab	Homework
Unit 4 Project 1	Homework
Unit 4 Project 2	Homework
Unit 4 Discussion 1	Discussion
Unit 4 Discussion 2	Discussion
Unit 4 Quiz	Quiz

## **Unit 5: Providing Services**

Now that you have an understanding of the professional responsibilities that cosmetologists have, it is time to explore what they actually do for clients. This unit will introduce some of the most common procedures performed by cosmetologists, including those involving hair, skin, nails, and hair removal. Through exploring these treatments and the chemical reactions that enable them, you will begin to have a sense of which of the subfields in cosmetology most appeals to you should you decide to pursue this career. In addition, this unit explores beauty culture and how it relates to the work of professional cosmetologists.

#### What will you learn in this unit?

- Apply academic skills to the field of cosmetology
- Describe some of the basic services performed by cosmetologists
- Relate principles of chemistry by explaining the composition, structure, and properties of substances and of chemical processes to provide a broad range of personal care services
- Define and explain beauty culture
- Analyze contemporary beauty standards as portrayed in advertising

UNIT 5 Assignments	
Assignment	Туре
Unit 5 Critical Thinking Questions	Homework

Appendices page 2440 Pennwood Cyber Charter School

Unit 5 Project 1	Homework
Unit 5 Project 2	Homework
Unit 5 Discussion 1	Discussion
Unit 5 Discussion 2	Discussion
Unit 5 Quiz	Quiz

## Cosmetology 1 Midterm Exam

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the first five units in this course (Note: You will be able to open this exam only one time.)

MIDTERM Assignments	
Assignment	Туре
Midterm Exam	Exam
Midterm Discussion	Discussion

#### Unit 6: Tools of the Trade

This unit will identify some of the tools used in the various branches of cosmetology. Students will come to understand how various implements are used and be able to provide details about their proper care and maintenance. These implements can be quite expensive and are really important for doing well, so it is essential that cosmetologists take good care of them. You will also understand some of the differences between commercial grade products and those available to consumers. In addition, the unit explores the hairstyles of past decades, how ideas of beauty reflect the times that produce them, and the beauty products available.

- Describe the function and application of the tools, equipment, technologies, and materials used in cosmetology
- Identify and choose techniques and principles and safely use tools and instruments to develop efficient and safe delivery of client services that enhance client satisfaction
- Explain basic requirements for maintaining cosmetology equipment

- Understand and describe the ways in which hairstyles reflect the era in which they were popular
- Explain some of the techniques used in hairstyles of the past

UNIT 6 Assignments	
Assignment	Туре
Unit 6 Critical Thinking Questions	Homework
Unit 6 Lab	Homework
Unit 6 Project 1	Homework
Unit 6 Project 2	Homework
Unit 6 Discussion 1	Discussion
Unit 6 Discussion 2	Discussion
Unit 6 Quiz	Quiz

#### Unit 7: The Basis of the Business—The Client

Providing the kind of service that clients expect and attracting clients are important parts of a cosmetologist's job. Students will learn about building and maintaining a client base. This includes not only providing clients with the services they require, but also ensuring that salons stay in touch with the clients they represent. It will also explore how technology can be used to monitor client preferences and services as well as maintain an updated client base. By understanding what clients expect from cosmetologists and what they are looking for, you will be better prepared to develop the kind of clients that can be the foundation of your business. Students will also look at what makes a good customer experience and explore the history of nail salons in North America.

- Interpret patterns of current information and resources on personal care services to attract new clientele and satisfy and retain present clientele
- Investigate organizational policies, procedures, and regulations to establish personal care organization priorities to accomplish the mission and provide high quality service to a diverse set of clients

- Apply technology to analyze data and information in order to make appropriate recommendations for personal care services
- Identify the aspects of a good salon experience
- Explain the rise of the nail service industry

<b>UNIT 7</b> Assignme
------------------------

Assignment	Туре
Unit 7 Critical Thinking Questions	Homework
Unit 7 Project 1	Homework
Unit 7 Project 2	Homework
Unit 7 Discussion 1	Discussion
Unit 7 Discussion 2	Discussion
Unit 7 Quiz	Quiz

## **Unit 8: Creating a Thriving Cosmetology Business**

Every business in cosmetology requires understanding customers. This unit will examine what brings customers into salons and what keeps them coming back so that cosmetologists can effectively create and manage a client base by defining what customers are looking for when building a relationship with a cosmetologist. It will also provide strategies for making the most out of a client base and explain the reasons clients choose to leave cosmetologists. Because not all interactions with customers will go well, strategies for dealing with difficult customers are discussed. The unit examines the ways technology can help cosmetologists anticipate client needs and identify trends in the beauty industry.

## What will you learn in this unit?

- Interpret patterns of current information and resources on personal care services to attract new clientele and satisfy and retain present clientele
- Identify current trends in the cosmetology industry
- Define the expectations customers have when purchasing cosmetology services
- Employ strategies to deal with difficult clients
- Recognize the factors used to evaluate a client base

Appendices page 2443 Pennwood Cyber Charter School

## **UNIT 8** Assignments

Assignment	Туре
Unit 8 Critical Thinking Questions	Homework
Unit 8 Lab	Homework
Unit 8 Project 1	Homework
Unit 8 Project 2	Homework
Unit 8 Discussion 1	Discussion
Unit 8 Discussion 2	Discussion
Unit 8 Quiz	Quiz

#### Unit 9: Basic Business Skills and Skin Care

This unit will continue to explore the profession of cosmetology by detailing the ways in which cosmetologists are typically paid and the relationships they form with salons so that students can evaluate the positive and negative aspects of these arrangements. In addition, this unit focuses on the qualities of the skin, which include identifying the basic skin types, understanding skin color and tone, and making appropriate makeup choices. It also examines the basic elements of a healthy skin care routine.

- Compare economic and accounting principles and practices when providing personal care services to promote business success and growth
- Evaluate the different pay structures within the cosmetology field
- Explain the different qualities of skin, including type, tone, and texture
- Demonstrate the core elements of a good skin care routine
- Choose appropriate cleansing products for different skin types

UNIT 9 Assignments	
Assignment	Туре
Unit 9 Critical Thinking Questions	Homework

Unit 9 Project 1	Homework
Unit 9 Project 2	Homework
Unit 9 Discussion 1	Discussion
Unit 9 Discussion 2	Discussion
Unit 9 Quiz	Quiz

## **Unit 10: Marketing Your Cosmetology Business**

This unit will explore important elements of leaders in the cosmetology field and the qualities that not only develop leadership skills but also open the door to new professional opportunities. It will also examine elements of the business side of the cosmetology field, such as managing inventory and acquiring supplies. Marketing is another important element of cosmetology, and this unit covers the basics of a good marketing plan for a cosmetology business, including how to attract and retain clients using social media.

#### What will you learn in this unit?

- Interpret systems that manage various personal care resources required for business practice
- Research client information to attract new clientele and retain present clientele
- Explore administrative and clerical procedures and systems to provide client satisfaction
- Critique leadership skills within a community setting to maintain positive relationships that enhance personal care business opportunities
- Propose advertising principles when selecting and using media to attract and retain clientele

UNIT 10 Assignments	
Assignment	Туре
Unit 10 Critical Thinking Questions	Homework
Unit 10 Lab	Homework
Unit 10 Project 1	Homework
Unit 10 Project 2	Homework
Unit 10 Discussion 1	Discussion
Unit 10 Discussion 2	Discussion

Appendices page 2445 Pennwood Cyber Charter School

Unit 10 Quiz	Quiz

# **Cosmetology 1 Final Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from units six to ten in this course the last five units. (Note: You will be able to open this exam only one time.)

FINAL Assignments	
Assignment	Туре
Final Exam	Exam
Final Exam Discussion	Discussion

# Course Syllabus

## What you will learn in this course



#### **COSMETOLOGY 2: THE BUSINESS OF SKIN AND NAIL CARE**

This vibrant industry needs skilled and personable professionals well-versed in the latest trends and technological advances. Explore what the day-to-day life of a cosmetologist is like, and discover that cosmetology is much more than knowing and applying techniques. Learn skin care and facials, how to give manicures and pedicures, how to apply artificial nails, and gain an understanding of different hair removal techniques. Discover the next steps towards launching a rewarding and creative career in cosmetology.

## Unit 1: Working in a Salon

Everyone wants to feel beautiful. Wouldn't it be great to enter a profession where you can help people look their best? Cosmetology has many areas you can work in to achieve your dreams. Here we will look at some of the basics of becoming a salon professional, from communicating

Appendices page 2447 Pennwood Cyber Charter School

well to keeping the workplace safe. Put your best foot forward as we start our journey behind the scenes in the beauty industry.

### What will you learn in this unit?

- Begin building your professional image
- Communicate effectively using reflective listening
- Name the main types of skin disorders
- Employ infection control measures
- Identify the functions of Safety Data Sheets

UNIT 1 Assignments	
Assignment	Туре
Unit 1 Critical Thinking Questions	Homework
Unit 1 Lab	Homework
Unit 1 Activity	Homework
Unit 1 Discussion 1	Discussion
Unit 1 Discussion 2	Discussion
Unit 1 Quiz	Quiz

### Unit 2: Nails: Basics of Fingers and Toes

Many women (and men!) want to have beautiful hands and feet. Think of all the celebrities who show off beautifully manicured fingernails and perfectly pedicured feet. Professional nail care is a huge market, as we all want to look as nice as the rich and famous. Learn the basics of professional nail care, products, and tools, and start on your way to beautifying those toes and fingers. Pick a color, and let's get started!

- Distinguish the differences between the cuticle and the eponychium
- Assess the nails and skin for common problems
- Comply with safety and infection control measures for nail care
- Perform a basic manicure including hand massage

• File nails into the five basic shapes for women

UNIT 2 Assignments	
Assignment	Туре
Unit 2 Critical Thinking Questions	Homework
Unit 2 Lab	Homework
Unit 2 Activity 1	Homework
Unit 2 Activity 2	Homework
Unit 2 Discussion 1	Discussion
Unit 2 Discussion 2	Discussion
Unit 2 Quiz	Quiz

## Unit 3: Nail Enhancements: From Tips to Wraps

The glamor of nail extensions used to be only for royalty or the extremely wealthy. Now, with newer and more accessible methods for applying long and sculpted nails, ordinary people can have outrageously attractive nails. From "acrylics" to gel and nail wraps, learn how to extend and shape nails for the modern and glamorous clients in your community!

## What will you learn in this unit?

- Apply nail tips properly
- Explain the chemistry of acrylic nail enhancements
- Work with UV or LED cured gel nail products
- Maintain tips and acrylic, gel, and nail wraps
- Utilize proper safety procedures when applying nail enhancements

UNIT 3 Assignments	
Assignment	Туре
Unit 3 Critical Thinking Questions	Homework

Unit 3 Lab	Homework
Unit 3 Activity 1	Homework
Unit 3 Activity 2	Homework
Unit 3 Discussion 1	Discussion
Unit 3 Discussion 2	Discussion
Unit 3 Quiz	Quiz

## **Unit 4: Specialty Treatments**

Salons offer all kinds of great services to pamper their customers. But what are these mysterious specialty "spa" services? Extra massage time, paraffin treatments, French manicures, sculpted nails, and nail art, just to name a few! These glorious extras can be for added relaxation, treatment for rough skin, or to achieve extra beauty of the nails. About the ever-popular French manicure—we will teach you how to do that right here. The best part: these extras give you even more chances to not only wow your clients but make extra money too! And after you have pampered your clients, are you up for creating some magnificent nail art? Let your creativity run wild as we learn some more techniques that will dazzle your clients!

#### What will you learn in this unit?

- Distinguish the differences between express and spa services for nails
- Safely use paraffin treatments for hands and feet
- Perform a classic French manicure
- Apply nail forms and sculpt nails into different shapes
- Experiment with the tools to create nail art

UNIT 4 Assignments	
Assignment	Туре
Unit 4 Critical Thinking Questions	Homework
Unit 4 Lab	Homework
Unit 4 Activity 1	Homework
Unit 4 Activity 2	Homework

Appendices page 2450 Pennwood Cyber Charter School

Unit 4 Discussion 1	Discussion
Unit 4 Discussion 2	Discussion
Unit 4 Quiz	Quiz

## Cosmetology 2 Midterm Exam

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the first four units in this course (Note: You will be able to open this exam only one time.)

MIDTERM Assignments	
Assignment	Туре
Midterm Exam	Exam
Midterm Discussion	Discussion

#### **Unit 5: Skin Care: Facials**

A clear and clean complexion sparkles from a mile away. Learn how to perform facials, and clients will flock to you because you help them reveal their inner beauty on their faces! Facials are relaxing and help people put their best face forward—cleansed and treated, no matter what skin type they have. What are those mysterious products and machines that are used for facials? They are mysteries no longer—you will learn how and why to use the right products and techniques to give a terrific, rejuvenating facial.

#### What will you learn in this unit?

- Identify the major skin types and their features
- Name the different product types that are used in facials
- Describe the benefits of electrotherapy
- Record all important information in the client record
- Perform a basic facial, choosing the correct products for the skin type

# **UNIT 5** Assignments

Assignment	Туре
Unit 5 Critical Thinking Questions	Homework
Unit 5 Lab	Homework
Unit 5 Activity 1	Homework
Unit 5 Activity 2	Homework
Unit 5 Discussion 1	Discussion
Unit 5 Discussion 2	Discussion
Unit 5 Quiz	Quiz

#### Unit 6: Skin Care: Hair Removal

Hair! It can be beautiful or it can be an unwelcome distraction. In a salon, you can have your tresses and locks clipped, curled, dyed, and styled, but most of us also have some stray facial hair we'd rather get rid of. Look no further: the secrets to safe, sanitary, and effective facial hair removal are at your fingertips. Shape those brows, remove stray chin hair, and safely remove that upper lip hair! Clients will love these services and you will be their beauty secret. Facial hair, what facial hair? I never saw a thing!

### What will you learn in this unit?

- Recognize the major contraindications for hair removal
- Describe the differences between the many types of hair removal
- Shape the eyebrows to complement face shape
- Wax the eyebrows, upper lip, and chin using sanitary procedures
- Instruct clients on home care after a hair removal service

UNIT 6 Assignments	
Assignment	Туре
Unit 6 Critical Thinking Questions	Homework
Unit 6 Lab	Homework
Unit 6 Activity	Homework

Appendices page 2452 Pennwood Cyber Charter School

Unit 6 Discussion 1	Discussion
Unit 6 Discussion 2	Discussion
Unit 6 Quiz	Quiz

## Unit 7: Skin Care: Makeup for Every Face

Fresh, trendy, and dramatic! Professional makeup application takes practice, but here you will learn the basic techniques to start you on your way. Make any client look like a celebrity with your knowledge of face shapes, contouring, and special eye techniques. With a few colors, the right tools, and your creativity, help everyone feel like a star on the red carpet!

## What will you learn in this unit?

- Identify face shapes and use contour to complement and conceal
- Use color theory to choose appropriate makeup colors for your clients
- Perform a professional makeup application
- Safely apply and remove artificial eyelashes
- Design variations on the smoky eye shadow style

UNIT 7 Assignments	
Assignment	Туре
Unit 7 Critical Thinking Questions	Homework
Unit 7 Lab	Homework
Unit 7 Activity	Homework
Unit 7 Discussion 1	Discussion
Unit 7 Discussion 2	Discussion
Unit 7 Quiz	Quiz

## **Unit 8: Expanding Your Skills**

Ready, set, go! Are you ready to take the next step towards a career as a cosmetologist? Read on and you will find everything you need to know about getting the right training, studying for your

Appendices page 2453 Pennwood Cyber Charter School

licensure exam, and working on getting your first job! Prepare to put your best foot—and hand, and face—forward to get ready for success in the beauty profession!

### What will you learn in this unit?

- Compare the pros and cons of different beauty school programs
- Methodically prepare for your licensing exam
- Use the power of networking to expand your contacts
- Compile a professional portfolio and resume
- Evaluate whether salon entrepreneurship is a good choice for you

# **UNIT 8** Assignments

Assignment	Туре
Unit 8 Critical Thinking Questions	Homework
Unit 8 Lab	Homework
Unit 8 Activity 1	Homework
Unit 8 Activity 2	Homework
Unit 8 Discussion 1	Discussion
Unit 8 Discussion 2	Discussion
Unit 8 Quiz	Quiz

## **Cosmetology 2 Final Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from units five to eight in this course the last four units. (Note: You will be able to open this exam only one time.)

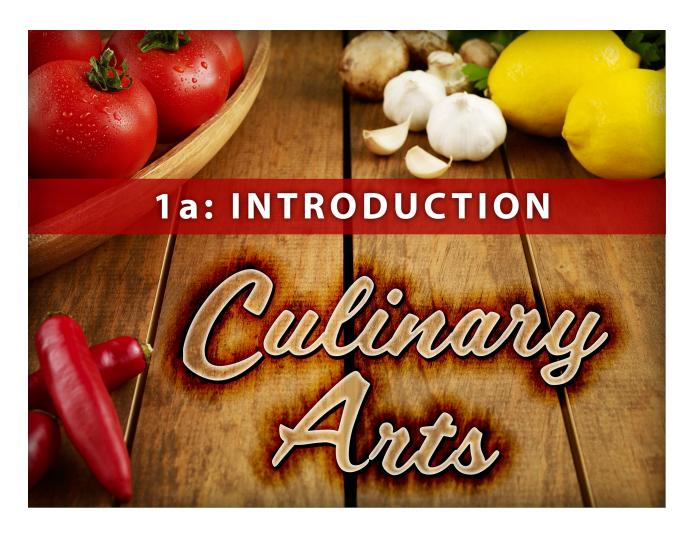
<b>FINAL</b>	<b>Assignments</b>
--------------	--------------------

THATE 7 Gorgini ento		
	Assignment	Туре
	Final Exam	Exam

Final Exam Discussion	Discussion

# Course Syllabus

## What you will learn in this course



## **Culinary Arts 1a: Introduction**

Thinking of a career in the foodservice industry or looking to develop your culinary skills? Explore basic cooking and knife skills while preparing you for entry into the culinary world. Discover the history of food culture, food service, and global cuisines while learning about food science principles and preservation. Prepare for your future by building the professional, communication, leadership, and teamwork skills that are crucial to a career in the culinary arts.

### **Unit 1: The Safe Kitchen**

The culinary process of cooking, baking, and preparing food is the only edible art form in the world, which means it is a pretty unique field of study. This characteristic also makes it a particularly enjoyable and valuable skill to learn. Who doesn't want to eat their own creation? But before you even think of tying on an apron, there are a few kitchen safety rules you won't want to miss, especially if you hope to enjoy your delicious "art" free from cuts, burns, and other

Appendices page 2456 Pennwood Cyber Charter School

cooking-related injuries. Once you understand how to handle any accidents or unexpected emergencies that might pop up in the kitchen, you will be one step closer to cooking up your own culinary masterpiece.

## What will you learn in this unit?

- Discuss the dos and don'ts of basic cooking
- Describe standard procedures for chemical hazard control
- Explain the importance of safety procedures in the workplace
- Identify and use proper first aid procedures for kitchen-related accidents and injuries

UNIT 1 Assignments		
Assignment	Туре	
Unit 1 Critical Thinking Questions	Homework	
Unit 1 Lab	Homework	
Unit 1 Activity	Homework	
Unit 1 Discussion 1	Discussion	
Unit 1 Discussion 2	Discussion	
Unit 1 Quiz	Quiz	

### **Unit 2: Knife Skills**

There's a reason why the television show "Iron Chef" uses two giant knives as their symbol. Not only is it recognizable, it instantly tells the viewer what is most valuable and vital in the kitchen of the culinary gods—their chef's knives! From the massive cleaver to the delicate boning knife, there is a special cutting tool for every recipe in the cooking world. To use and maintain these sharp blades properly, free from injury and stress, certainly takes some talent, but it is well worth the effort. Because once you have the knowledge of knives under your apron straps, you're ready to start cooking with fire.

# What will you learn in this unit?

- Discuss the importance of proper knife safety
- Explain and demonstrate basic knife techniques

- Identify and explain the four key knives in a professional kitchen
- Describe various cutting methods and the role they play in food preparation

UNIT 2	Assign	ments
--------	--------	-------

Assignment	Туре
Unit 2 Critical Thinking Questions	Homework
Unit 2 Lab	Homework
Unit 2 Activity	Homework
Unit 2 Discussion 1	Discussion
Unit 2 Discussion 2	Discussion
Unit 2 Quiz	Quiz

# **Unit 3: Food Safety**

Food is a wonderful thing. It is delicious, nutritious, and enjoyable—but sadly, it can also be dangerous if not handled properly. And for individuals hoping to find success in the culinary world, understanding areas like sanitation, storage, and waste management in a kitchen environment is the only way to fight this danger. It is not possible to whip up edible masterpieces for people to enjoy until you recognize the many ways bacteria and foodborne illnesses can ruin your efforts, not to mention make people sick. That's why all chefs, no matter how talented and famous they are, make all–around cleanliness and proper food handling their top priority.

### What will you learn in this unit?

- Apply sanitation standards to the kitchen environment
- Identify the key elements of foodborne illnesses and how to prevent them
- Explain the process and importance of waste management in the food industry
- Describe the inventory process and how it affects food preparation and safety

## **UNIT 3** Assignments

Assignment	Туре
Unit 3 Critical Thinking Questions	Homework
Unit 3 Lab	Homework
Unit 3 Activity	Homework
Unit 3 Discussion 1	Discussion
Unit 3 Discussion 2	Discussion
Unit 3 Quiz	Quiz

### **Unit 4: Cuisine and Culture**

Any time you want to really understand something, you need to start at the beginning. And in the case of food, the beginning extends back hundreds of thousands of years to a time when an open fire was the only method of cooking. But through centuries of culinary "trial and error," we have finally arrived at a point where we understand food better than ever. Science and technology have contributed greatly to our knowledge of food, always building on the existing foundation of culture and tradition. Using both older approaches and beliefs along with new findings, chefs are now able to explore the world of edible ingredients like never before.

### What will you learn in this unit?

- Explain food science and how it affects the culinary world
- Identify various cooking methods and how they affect food
- Describe different cuisines and their relationship to culture and history
- Differentiate between proteins and other food groups

UNIT 4 Assignments	
Assignment	Туре
Unit 4 Critical Thinking Questions	Homework
Unit 4 Lab	Homework
Unit 4 Activity	Homework
Unit 4 Discussion 1	Discussion

Appendices page 2459 Pennwood Cyber Charter School

Unit 4 Discussion 2	Discussion
Unit 4 Quiz	Quiz

## **Culinary Arts 1a Midterm Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the first four units in this course (Note: You will be able to open this exam only one time.)

MIDTERM Assignments	
Assignment	Туре
Midterm Exam	Exam
Midterm Discussion	Discussion

## **Unit 5: Garde Manger: The Cold Kitchen**

If you are interested in finding a unique place in the culinary world where your artistry can shine, the cold kitchen environment of the garde manger might be the place for you. From classic mixed green salad to avocado crabmeat soup to seared cardamom duck with poached tangerine relish, this realm of food preparation is cool for many reasons. Not only is the history of the garde manger a long and fascinating one, it has set a foundation for artistry and culinary achievement that is second to none. Using skills and many tricks of the trade, these chefs are able to produce all sorts of chilled delights that are appealing to both the senses and the taste buds. Fresh, chilled, sweet, tangy, spicy, creamy, crunchy, the beauty of the garde manger proves fire isn't the only way to cook.

### What will you learn in this unit?

- Explain the history and significance of the garde manger
- Describe the types of dishes prepared in the cold kitchen
- Identify proper preservation methods, both new and old
- Detail the basic equipment in the garde manger

# **UNIT 5** Assignments

Appendices page 2460 Pennwood Cyber Charter School

Assignment	Туре
Unit 5 Critical Thinking Questions	Homework
Unit 5 Lab	Homework
Unit 5 Activity	Homework
Unit 5 Discussion 1	Discussion
Unit 5 Discussion 2	Discussion
Unit 5 Quiz	Quiz

## Unit 6: The Principles of Food

There is a lot more to food than meets the eye—and the mouth. Every ingredient written up in a menu and served up on a plate has its own unique set of characteristics, mannerisms, and preferences, much like a person. Further, every ingredient, down to the last potato peel, is associated with a monetary cost of some kind, which is why chefs must learn to straddle the world of art and finance. On one side, they are engaging with food creatively, while on the other side, they must also look at the entire process with a practical eye. They must know how to craft a menu without losing sight of their budgetary goals, always shooting for the best value with the most yield. Striking this balance is critical in the food service industry, where things must be both delicious and affordable.

## What will you learn in this unit?

- Describe a standardized recipe and its significance to the food industry
- Perform cost analysis on an original recipe
- Explain the application of weights and measures in a food service setting
- Discuss the principles of food preparation

UNIT 6 Assignments	
Assignment	Туре
Unit 6 Critical Thinking Questions	Homework
Unit 6 Lab	Homework
Unit 6 Activity	Homework

Appendices page 2461 Pennwood Cyber Charter School

Unit 6 Discussion 1	Discussion
Unit 6 Discussion 2	Discussion
Unit 6 Quiz	Quiz

#### **Unit 7: Professionalism**

Entering the world of cuisine is about far more than just cooking. It has its own rich history, language, and professional hierarchy of positions—almost like a mini-kingdom. With the executive chef as the royal monarch, all the other roles unfold beneath to create a network of individuals collaborating as a team to deliver up the best possible food from their kitchen. And being part of this kingdom demands knowledge of its unique rules and expectations, many of which are unwritten and unspoken. But don't be fooled—the cultural climate of a professional kitchen is as real as fire, and it will burn you if don't learn how to get along, communicate, and most importantly, bring your personal best every single time you pick up a pan. For those who can handle the heat, it is one of the most exciting and fulfilling places on earth.

### What will you learn in this unit?

- Discuss the history of food service and some of its contributing figures
- Describe the various roles of the kitchen hierarchy
- Define professionalism and its key tenets
- Explain the importance of oral and written communication in the workplace

UNIT 7 Assignments			
Assignment	Туре		
Unit 7 Critical Thinking Questions	Homework		
Unit 7 Lab	Homework		
Unit 7 Activity	Homework		
Unit 7 Discussion 1	Discussion		
Unit 7 Discussion 2	Discussion		
Unit 7 Quiz	Quiz		

Appendices page 2462 Pennwood Cyber Charter School

### Unit 8: Leadership, Teamwork, and Ethics

No one said being a chef is a simple profession. It is a world filled with rules, challenges, and expectations, all of which have to be honored and met. Despite its history, the professional kitchen is not really a traditional workplace. It's dangerous and filled with fire and sharp objects. It's a place where tempers run high and performance is everything. It can be a tiring, stressful, and hectic environment. And these realities can sometimes heighten the professional drama and make certain challenges seem insurmountable. But what's important to remember is that life in the kitchen often mirrors the challenges of daily life. People yell, and things sometimes get intense. There are a diverse number of people, backgrounds, and ideas. Things get messed up, and then they get fixed. Just like life. That's why people in food service depend heavily on the strength of their leaders and their team to get the job done, no matter what. Working through personal and professional challenges in a fast-paced environment is an adrenaline rush like no other, and many of the best chefs in the world will tell you they wouldn't trade it for anything.

### What will you learn in this unit?

- Describe effective leadership in the workplace
- Explain the role of teamwork in the kitchen
- Discuss the importance of team diversity
- Identify and exhibit professional work ethics

<b>UNIT 8</b> Assignments	UNII	8	Assignments
---------------------------	------	---	-------------

Assignment	Туре
Unit 8 Critical Thinking Questions	Homework
Unit 8 Lab	Homework
Unit 8 Activity	Homework
Unit 8 Discussion 1	Discussion
Unit 8 Discussion 2	Discussion
Unit 8 Quiz	Quiz

## **Culinary Arts 1a Final Exam**

• Review information acquired and mastered from this course up to this point.

• Take a course exam based on material from units five to eight in this course – the last four units. (Note: You will be able to open this exam only one time.)

FINAL Assignments	
Assignment	Туре
Final Exam	Exam
Final Exam Discussion	Discussion

# Course Syllabus

## What you will learn in this course



## **Culinary Arts 1b: Finding Your Palate**

Did you know that baking is considered a science? Discover how to elevate your culinary skills through the creation of stocks, soups, sauces, and learn baking techniques. Examine sustainable food practices and the benefits of nutrition while maintaining taste, plating, and presentation to truly wow your guests. Explore careers in the culinary arts for ways to channel your newfound passion!

## Unit 1: The Healthy, Sustainable Kitchen

As an aspiring chef, the effort to embrace health and sustainability is important on many levels. Not only is the kitchen a culinary landscape where nutrition is created, it is also the scene of tremendous waste. That's why a firm understanding of nutritional principles must go hand in hand with a clear sense of how kitchen ingredients and processes can be maintained and supported over long periods of time. This combination of information gives chefs the power to

Appendices page 2465 Pennwood Cyber Charter School

create delicious food while still keeping an awareness of other important factors, like the health and well-being of diners and the world.

## What will you learn in this unit?

- Describe the six major food groups and how they affect dietary health
- Apply nutritional principles during food preparation and planning
- Discuss the strengths and weaknesses of nutritional guidelines
- Demonstrate healthy cooking techniques
- Explain the importance of sustainability in the kitchen and how it can be achieved

UNIT 1 Assignments			
Assignment	Туре		
Unit 1 Critical Thinking Questions	Homework		
Unit 1 Lab	Homework		
Unit 1 Activity	Homework		
Unit 1 Discussion 1	Discussion		
Unit 1 Discussion 2	Discussion		
Unit 1 Quiz	Quiz		

#### Unit 2: Tools of the Trade

Setting up your workspace in busy professional kitchen is a lot like preparing for a scheduled natural disaster. You can never be fully prepared for it, and you never know what you are going to get—all you know is the rush is going to hit and it's going to hit big. What you can do is be ready to make your workstation hum. The goal is to make it through the shift successfully, perhaps even enjoying the process of learning as you go. The kitchen is not always predictable and it's not always pretty—but if you can master the use of your own tools and equipment, you will emerge from the madness in one piece. And along the way, the kitchen brigade will look out for you, help you, and hopefully share a few thoughts on how to improve your cooking game.

### What will you learn in this unit?

• Describe the tools and equipment found in a commercial kitchen

- Explain how to best select, use, and maintain kitchen equipment
- Develop and use an equipment checklist in the kitchen
- Discuss proper mise en place in a kitchen workstation

UNIT 2 Assignments			
Assignment	Туре		
Unit 2 Critical Thinking Questions	Homework		
Unit 2 Lab	Homework		
Unit 2 Activity	Homework		
Unit 2 Discussion 1	Discussion		

Discussion

Ouiz

### Unit 3: Stocks, Sauces, and Soups

Unit 2 Discussion 2

Unit 2 Quiz

There's a secret to cooking that many people don't know. It's not all about the size of the pork chop or the heat of the fire. And success as a chef is not based solely on the sharpness of your knives or the creativity of your mind. While those aspects are certainly important, they don't rule the culinary world. Instead, the true talent of a chef relies on a much smaller detail—namely, cooking technique. This skillfulness in creating the most basic dishes is the foundation of all cooking, from haute cuisine to simple burgers. When your method or approach to simple foods is spot-on, it translates into larger masterpieces in the kitchen. That's why stocks, soups, and sauces are such a critical piece of your culinary education. As the foundation for flavor, these liquid delights are one of the first building blocks for new chefs who are looking to develop a strong skillset. And once they are mastered, the colorful, delicious landscape of food becomes even more accessible.

## What will you learn in this unit?

- Define the four essential components of cooking stock
- Identify and describe the two classifications of soup
- Discuss the principles of thickening agents
- Explain the characteristics and derivatives of the five mother sauces

Appendices page 2467 Pennwood Cyber Charter School

### **UNIT 3** Assignments

Assignment	Туре
Unit 3 Critical Thinking Questions	Homework
Unit 3 Lab	Homework
Unit 3 Activity	Homework
Unit 3 Discussion 1	Discussion
Unit 3 Discussion 2	Discussion
Unit 3 Quiz	Quiz

## Unit 4: Baking: Breads, Cakes, & Cookies

The world of baking may seem vast and complicated—and maybe it is a little—but it also has a some very clear ingredients and methods. Anyone new to baking can easily set up a full–service kitchen with just nine essential ingredients and a working knowledge of how these substances fit together to create all sorts of delicious treats. Once the basic science of baking is clear, everything else is just icing on the cake.

### What will you learn in this unit?

- Describe various baking methods
- Identify the basic ingredients involved in baking
- Explain the principles of food science in baking techniques
- Discuss the ways baking is considered both a science and an art

# **UNIT 4** Assignments

Assignment	Туре
Unit 4 Critical Thinking Questions	Homework
Unit 4 Lab	Homework
Unit 4 Activity	Homework

Appendices page 2468 Pennwood Cyber Charter School

Unit 4 Discussion 1	Discussion
Unit 4 Discussion 2	Discussion
Unit 4 Quiz	Quiz

## **Culinary Arts 1b Midterm Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the first four units in this course (Note: You will be able to open this exam only one time.)

MIDTERM Assignments		
Assignment	Туре	
Midterm Exam	Exam	
Midterm Discussion	Discussion	

# **Unit 5: Culinary Business and Entrepreneurship**

We've talked about food as science and art; now it is time to look at it as a business. If you choose to join the kitchen brigade, you are in for a fast-paced environment, but there are a lot of different ways to incorporate yourself into the food service world outside of cooking in a commercial kitchen. Remember, the culinary arts are about taking tradition and turning it into something innovative and delicious, which is why it's important to understand more about the current trends in food service and how they affect the industry as a whole.

### What will you learn in this unit?

- Discuss the history and trends of the food service industry
- Explain the procedures of purchasing, receiving, and issuing
- Identify how entrepreneurs maximize opportunity
- Describe various marketing strategies in food service

UNIT 5 Assignments		

Appendices page 2469 Pennwood Cyber Charter School

Assignment	Туре
Unit 5 Critical Thinking Questions	Homework
Unit 5 Lab	Homework
Unit 5 Activity	Homework
Unit 5 Discussion 1	Discussion
Unit 5 Discussion 2	Discussion
Unit 5 Quiz	Quiz

## Unit 6: Service, Style, and Satisfaction

When we think about the art of cooking, it's easy to stay focused on things like ingredients, methods, and nutrition, but it's also important to remember the culinary experience is precisely that—an *experience* comprised of many elements beside what's on the menu. For diners, eating in a restaurant, especially an upscale one, offers the chance to enjoy great service while also appreciating the flavors and overall presentation of the food itself. And as a food service professional, this experience is directly linked to personal pride, expert efforts, and a dedication to positive customer relations. When it comes to culinary artistry, the areas of service, style, and satisfaction are yet another place where creativity reigns.

### What will you learn in this unit?

- Differentiate between different types and styles of food service
- Identify proper techniques for handling customer relations
- Describe some methods of effective food presentation
- Explain formal dining etiquette from the perspective of both a server and a customer

UNIT 6 Assignments		
Assignment	Туре	
Unit 6 Critical Thinking Questions	Homework	
Unit 6 Lab	Homework	
Unit 6 Activity	Homework	
Unit 6 Discussion 1	Discussion	

Appendices page 2470 Pennwood Cyber Charter School

Unit 6 Discussion 2	Discussion
Unit 6 Quiz	Quiz

## **Unit 7: Choosing Your Culinary Career**

A professional opportunity is not worth much if you don't know how to take advantage of it. Seeking ways to maximize what's in front of you, both personally and professionally, is key to finding employment as well as staying happy at work. From self-assessment to networking to setting goals, choosing your culinary career demands a lot of skills and knowledge, but most of all, it requires confidence and the belief that you can achieve all of your dreams with the right moves.

### What will you learn in this unit?

- Identify career and employment opportunities
- Explain various steps in the career decision-making process
- Discuss different levels of education and training required for food service
- Describe ways to manage multiple roles and responsibilities

# **UNIT 7** Assignments

Assignment	Туре	
Unit 7 Critical Thinking Questions	Homework	
Unit 7 Lab	Homework	
Unit 7 Activity	Homework	
Unit 7 Discussion 1	Discussion	
Unit 7 Discussion 2	Discussion	
Unit 7 Quiz	Quiz	

### **Unit 8: Networking for Success**

With so much knowledge in your head about the tools, techniques, and etiquette of the culinary world, it's time to start thinking about how all this information can help you transform your foodie dreams and goals into real, tangible achievements. Learning how to map out your journey

through the food service industry is just as important as understanding the secrets to great soups and sauces; it just takes some motivation, a little inspiration, and a whole lot of self-confidence to visualize the career you want in food service, hospitality, and beyond. You are not alone in this journey; plenty of industry professionals and leadership organizations are there to help you reach your goal.

### What will you learn in this unit?

- Explain the significance of professional organizations in hospitality and food service
- Create a personal leadership plan
- Identify leadership and teamwork opportunities to enhance your professional skills
- Name and define several prominent culinary associations

UNIT 8 Assignments		
Assignment	Туре	
Unit 8 Critical Thinking Questions	Homework	
Unit 8 Lab	Homework	
Unit 8 Activity	Homework	
Unit 8 Discussion 1	Discussion	
Unit 8 Discussion 2	Discussion	

Quiz

## **Culinary Arts 1b Final Exam**

Unit 8 Quiz

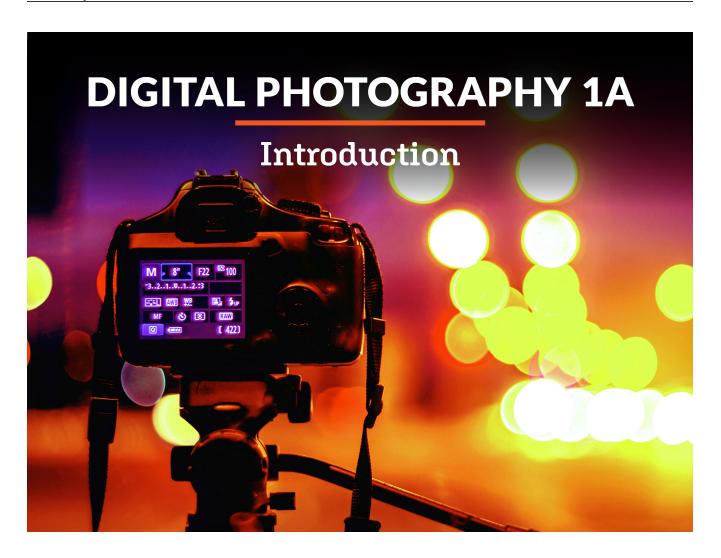
- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from units five to eight in this course the last four units. (Note: You will be able to open this exam only one time.)

FINAL Assignments	
Assignment	Туре

Final Exam	Exam
Final Exam Discussion	Discussion



## What you will learn in this course



### **DIGITAL PHOTOGRAPHY 1A: INTRODUCTION**

Have you wondered how professional photographers manage to capture that perfect image? Gain a better understanding of photography by exploring camera functions and the elements of composition while putting theory into practice by taking your own spectacular shots! Learn how to display your work for exhibitions and develop skills important for a career as a photographer.

## **Unit 1: Taking The First Shot**

Welcome to the digital age of information and photography! This recent growth in technology has obviously changed our lives in many ways, and the realm of photography is no exception. While digital photography shares many characteristics with the traditional artform, digitization of the equipment, the process, and the products related to photography have been positively earth shattering for expert and amateur photographers alike. With these rapidly advancing abilities,

Appendices page 2474 Pennwood Cyber Charter School

photographers have drastically changed the way they document the many things they see, incorporating significantly more convenience, ease, and efficacy. So get ready! Now you, too, can be a part of the digital photography wave, changing the visual world in colorful, innovative ways.

## What will you learn in this unit?

- Identify and explain basic camera anatomy and function
- Discuss the main subjects found in photography
- Explain how to care for and maintain camera equipment
- Describe how a camera is held and used

UNIT 1	Assignments

Assignment	Туре
Unit 1 Critical Thinking Questions	Homework
Unit 1 Lab	Homework
Unit 1 Activity	Homework
Unit 1 Discussion 1	Discussion
Unit 1 Discussion 2	Discussion
Unit 1 Quiz	Quiz

## **Unit 2: Moving Into Manual**

When you were a small child, you had to learn how to walk before you could run and grasping the art of digital photography isn't much different. At first, using automatic settings that allow you to explore without too much concern for control can be a great way to learn the ropes and get comfortable with your camera. But there will likely come a time when you, as an emerging visual artist, feel ready to "run" with your camera by taking on the challenge of manual settings. To prepare you for this next step, let's explore the many ways basic camera functions are affected by certain manual modes and how you can use them to create exactly the right setting for your shot. Not only will this help you make informed photographic decisions, it will ensure you get the most out of your time behind the lens and with the highest quality result.

## What will you learn in this unit?

- Explain the significance of file format
- Identify different types of camera lens and how they function
- Discuss the workings of a light meter.
- Discover the importance of exposure and overall lighting effects

<b>UNIT</b>	2	<b>Assignments</b>
-------------	---	--------------------

Assignment	Туре
Unit 2 Critical Thinking Questions	Homework
Unit 2 Lab	Homework
Unit 2 Activity	Homework
Unit 2 Discussion 1	Discussion
Unit 2 Discussion 2	Discussion
Unit 2 Quiz	Quiz

# **Unit 3: A Snapshot of History**

When you stop to consider how far the field of photography has come over the years, it's nothing short of amazing. As both a casual hobby and a profound form of creative expression, it has become an increasingly accessible practice that's now available to every one of us. Yet, simultaneously, it has also risen to find a legitimate place in the world of fine art. Not so sure? Simply look back at the tremendous legacy left behind by the various artists who have embraced photography as a way to enhance their lives and their art form. By taking even a brief peak through the lens of the past at the innovators, scientists, and creators who came before us in the field, we can often trace emerging trends still widely seen today. And interestingly enough, such an understanding can often be incredibly helpful in teaching us how to take our own visions to the next level. So, are you ready? Let's go!

### What will you learn in this unit?

- Explain the difference between art and fine art photography
- Identify and discuss selected artists who have contributed to the development of photography
- Identify and discuss general themes and trends in different periods of photographic history

• Describe the mechanics of early photographic systems

Appendices page 2476 Pennwood Cyber Charter School

## **UNIT 3** Assignments

Assignment	Туре
Unit 3 Critical Thinking Questions	Homework
Unit 3 Lab	Homework
Unit 3 Activity	Homework
Unit 3 Discussion 1	Discussion
Unit 3 Discussion 2	Discussion
Unit 3 Quiz	Quiz

## Unit 4: The Nature of Light

Have you ever noticed the soft light that illuminates the sky as the sun rises each morning? Or maybe you've smiled while watching a child squeal in delight as they chase their own shadow? Maybe you've even considered trying to capture such moments and the different moods that the light and the shadows create? To do this effectively, you'll want to understand how the elements of light and control work together to create certain effects. For those who want to really, truly grasp the magic behind photography, this is a critical step and one that takes a working knowledge of where light comes from, how it is characterized, and what it can accomplish in a picture. But once you have this practical awareness in your mind, an entire world of creative possibility opens that you can both enjoy and control.

### What will you learn in this unit?

- Identify light sources and describe how they differ
- Explain how to effectively use available light
- Describe safe and proper use of photographic tools and processes
- Discuss the characteristics of color and how they are affected by light

UNIT 4 Assignments	
Assignment	Туре
Unit 4 Critical Thinking Questions	Homework

Appendices page 2477 Pennwood Cyber Charter School

Unit 4 Lab	Homework
Unit 4 Activity	Homework
Unit 4 Discussion 1	Discussion
Unit 4 Discussion 2	Discussion
Unit 4 Quiz	Quiz

## Digital Photography 1a Midterm Exam

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the first four units in this course (Note: You will be able to open this exam only one time.)

MIDTERM Assignments	
Assignment	Туре
Midterm Exam	Exam
Midterm Discussion	Discussion

## **Unit 5: Creative Composition**

Have you ever noticed how some things come so easily while others simply...don't? The world of digital photography is no exception—sometimes you manage to capture the perfect candid shot with no real effort, while other times you need to purposefully arrange and tweak various elements to achieve the desired effect. Because digital photography is often an artistic endeavor, there are no hard, fast "rules" for how to make this easier, but there are plenty of tried and true suggestions! Learning some of these visual organizational strategies, as well as how your camera can help you apply them, will give you the control and understanding you need to find just the right composition, no matter where or what you are shooting. And once you have these things under your belt, you will begin to see subjects and their placement in a whole new way—which means the emerging photographer in you can more easily communicate your vision to the world!

### What will you learn in this unit?

- Explain various composition techniques and their effects
- Identify the appropriate lens for a subject

- Discuss how a camera lens relates to visual composition
- Describe the basic components of a tripod and other support equipment

<b>UNIT 5</b>	Assign	ments
---------------	--------	-------

Assignment	Туре
Unit 5 Critical Thinking Questions	Homework
Unit 5 Lab	Homework
Unit 5 Activity	Homework
Unit 5 Discussion 1	Discussion
Unit 5 Discussion 2	Discussion
Unit 5 Quiz	Quiz

## **Unit 6: Producing Great Images**

Have you ever wondered if it is possible to snap pictures and collaborate with other creatives but still make your own artistic visions a reality—all while actually making money? If you have, the answer is yes, yes, and yes. All of those things are fully achievable if you understand your options and what it takes to access them in the real world. Finding a job, or even a full—blown career, in digital photography is not only realistic, it's entirely within your grasp with the right motivation and know how. Learning more about the various roles in professional photography is just the first step in finding out how these visual artists use their love of imagery to carve out a life of art and work, bound together by a solid devotion to the craft and a path toward ongoing personal satisfaction and success.

#### What will you learn in this unit?

- Identify job titles associated with digital photography
- Discuss the interrelationship among artists
- Describe the various stages of production
- Explain photographic terms and jargon

## **UNIT 6** Assignments

Assignment	Туре
Unit 6 Critical Thinking Questions	Homework
Unit 6 Lab	Homework
Unit 6 Activity	Homework
Unit 6 Discussion 1	Discussion
Unit 6 Discussion 2	Discussion
Unit 6 Quiz	Quiz

## **Unit 7: Manipulation and Management**

Some people would say the absolute best part of digital photography is not learning about lenses or how to zoom in on a great subject but what can actually be done with those images once they are captured in digital form. Image editing and the art of manipulation offer digital photographers a whole new canvas for visual art while also opening a vast world of technical design tools. Turns out the creativity doesn't actually end when the lens cap goes back on but rather it continues *en force* as photographers turn to software, filters, and effects to bring out the best in their pictures while also harnessing the power of personal imagination. Learning how you can take advantage of these creative options is the first step in navigating the post production world and understanding more about how to protect your own work while also enjoying the billions of images you see every day.

## What will you learn in this unit?

- Explain how image editing and manipulation affects the craft
- Apply design skills to create original works of art
- Discuss the significance of image distortion in digital photography
- Define and discuss the boundaries of copyright protection

UNIT 7 Assignments	
Assignment	Туре
Unit 7 Critical Thinking Questions	Homework
Unit 7 Lab	Homework
Unit 7 Activity	Homework

Appendices page 2480 Pennwood Cyber Charter School

Unit 7 Discussion 1	Discussion
Unit 7 Discussion 2	Discussion
Unit 7 Quiz	Quiz

# **Unit 8: Presenting Your Work**

After so much effort spent behind the camera lens, aren't you excited for the day when you are finally able to share your photographic talent with the world? This next step in your artistic journey is exciting because it offers you a chance to produce a real event while also channeling your inner artistic vision. And it might surprise you to learn that pulling off your very own photographic art exhibition is not only possible—it's tremendously satisfying. Once you learn how easy it is to plan and present your own work to the public, you'll be itching to get started on planning your first big event. A big dose of positivity, some creative vision, and genuine effort is all you really need.

### What will you learn in this unit?

- Discuss the key components of a photographic exhibition
- Create an artistic statement
- Explain the various ways a print can be mounted and installed
- Identify the important factors in a budget

UNIT 8 Assignments	
Assignment	Туре
Unit 8 Critical Thinking Questions	Homework
Unit 8 Lab	Homework
Unit 8 Activity	Homework
Unit 8 Discussion 1	Discussion
Unit 8 Discussion 2	Discussion
Unit 8 Quiz	Quiz

## Digital Photography 1a Final Exam

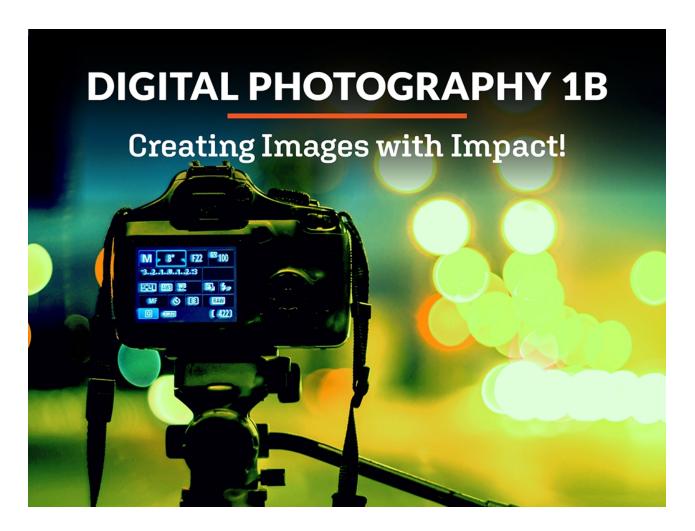
• Review information acquired and mastered from this course up to this point.

• Take a course exam based on material from units five to eight in this course the last four units. (Note: You will be able to open this exam only one time.)

FINAL Assignments	
Assignment	Туре
Final Exam	Exam
Final Exam Discussion	Discussion



## What you will learn in this course



## Digital Photography 1b: Creating Images with Impact!

Building on the prior prerequisite course, further develop your photography skills by learning more professional tips, tricks, and techniques to elevate your images. Explore various photographic styles, themes, genres, and artistic approaches. Learn more about photojournalism and how to bring you photos to life. Using this knowledge, build a portfolio of your work to pursue a career in this field!

### Unit 1: Photojournalism: Real Life in Pictures

Who takes those photos that appear in the news every day? What about those in magazines or on television and the internet? The answer is photojournalists—they're the professionals charged with the challenging task of finding the best angle on every story they cover. Related to photojournalism, street photographers and documentary photographers also strive to tell the truth of the real world in arresting visual images. These days, anyone can be witness to a historic

Appendices page 2483 Pennwood Cyber Charter School

event by snapping a cell phone photo that may even be featured around the world. So whether you want to be a citizen photojournalist and document the happenings in your town or a jet setting war photographer, photographing real life can make headlines near and far.

## What will you learn in this unit?

- Apply the ethical rules of photojournalism
- Create photos using the "decisive moment" idea of Cartier Bresson
- Connect the history of photojournalism to the Pictorialist and straight photography movements
- Analyze the use of citizen journalists by professional news organizations

UNIT 1 Assignments	
Assignment	Туре
Unit 1 Critical Thinking Questions	Homework
Unit 1 Lab	Homework
Unit 1 Activity	Homework
Unit 1 Discussion 1	Discussion
Unit 1 Discussion 2	Discussion
Unit 1 Quiz	Quiz

## Unit 2: Context is Everything: Style and Genre

Can you tell a stock photo from a propaganda photo? How about the difference between a glamour and a celebrity photo? All these photo genres have stylistic cues that might provide some clues, but many of them inspire each other so it's entirely possible to find elements of one genre in another entirely different genre. How about a fashion wildlife shot? Or an ethnographic product shot? Read on to find out how context, aesthetics, cultural sensitivity, and ethics come together in the wide world of photography.

## What will you learn in this unit?

- Discern the difference between creative and editorial photography genres
- Compare and contrast stylistic characteristics of different genres of photography

- Differentiate between ethnographic photography and authentic cultural expression
- Analyze photographs by using aesthetic, historical, and contextual cues

## **UNIT 2** Assignments

Assignment	Туре
Unit 2 Critical Thinking Questions	Homework
Unit 2 Lab	Homework
Unit 2 Activity	Homework
Unit 2 Discussion 1	Discussion
Unit 2 Discussion 2	Discussion
Unit 2 Quiz	Quiz

# Unit 3: There's an App for That

In the days before digital photography, people often spent a great deal of time printing and organizing their photographs. This process could be time consuming, potentially pricey, and often required a good amount of storage space and materials. Enter the era of digital photography we're going to dive into how you can be a far more efficient digital file clerk for your photos, keeping them safe, polishing them to make them perfect, and sharing them with the world. And the great part is that you don't have to lug big boxes and risk paper cuts! Organization, of course, is a huge part of being a great photographer. Working with your digital files which will multiply to the thousands before you know it is what can make or break a professional career. But don't stress! Together we'll uncover how to best manage this beast, and when you need to find that perfect photo, you won't have to search under every rock you will have it all organized at your fingertips!

## What will you learn in this unit?

- Choose an appropriate workflow and image editing software
- Describe and use three different types of photo metadata
- Experiment with post processing tools like white balance, tone, and color settings
- Set up a photo gallery on a photo sharing website that can function as a digital portfolio

Appendices page 2485 Pennwood Cyber Charter School

UNIT 3 Assignments	
Assignment	Туре
Unit 3 Critical Thinking Questions	Homework
Unit 3 Lab	Homework
Unit 3 Activity	Homework
Unit 3 Discussion 1	Discussion
Unit 3 Discussion 2	Discussion
Unit 3 Quiz	Quiz

## **Unit 4: Words and Pictures: Composing Meaning**

We have delved into how to organize your photographic process *technically*, but what about the creative side? What is your creative process? Perhaps you would benefit from developing a sketchbook to work on ideas. Or, dive into studying the elements of visual art and the principles of design so that you have tools to talk about your work. Together, we'll begin to find new ways to go deeper into your artwork by using your verbal skills along with your visual creativity and your technical skill. While we're at it, we'll also learn a bit from some famous artists who combined photography and text in their work.

#### What will you learn in this unit?

- Analyze the visual elements in a photograph or other work of art
- Apply the principles of design to the creation of photographs or analysis of composition
- Compare and contrast ways of thinking about visual perception in photography
- Implement an open ended creative process in photography

UNIT 4 Assignments	
Assignment	Туре
Unit 4 Critical Thinking Questions	Homework
Unit 4 Lab	Homework
Unit 4 Activity	Homework
Jnit 4 Activity	Homework

Appendices page 2486 Pennwood Cyber Charter School

Unit 4 Discussion 1	Discussion
Unit 4 Discussion 2	Discussion
Unit 4 Quiz	Quiz

## **Digital Photography 1b Midterm Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the first four units in this course (Note: You will be able to open this exam only one time.)

MIDTERM Assignments	
Assignment	Туре
Midterm Exam	Exam
Midterm Discussion	Discussion

## Unit 5: Don't Listen to the Haters: Productive Critique

People are often all too glad to share their opinions. Everyone loves to pipe in with "I love it!" or "that stinks." But uninformed or quick opinions are not likely to help you improve your photography skills and artistry. However, a solid critique (covering both objective and subjective points about your photos) can make you see your photos in a whole new light. Together, we'll discover how to both critique other people's work as well as how to request and respond to feedback we receive. Last, we'll learn a bit about different styles of interpretation so that we can pull meaning from photos in different ways.

#### What will you learn in this unit?

- Define the term critique and differentiate it from criticism
- Critique photos and photo series with multiple tools
- Utilize constructive criticism to improve photographic artistry
- Interpret the meaning of photographs through multiple perspectives

# **UNIT 5** Assignments

Assignment	Туре
Unit 5 Critical Thinking Questions	Homework
Unit 5 Lab	Homework
Unit 5 Activity	Homework
Unit 5 Discussion 1	Discussion
Unit 5 Discussion 2	Discussion
Unit 5 Quiz	Quiz

## Unit 6: Finding Your Peeps: Photography and Community

We humans are social creatures. Getting together with other photographers is one way to find community, learn new things, get critiques, and share your photography. While online photo communities have a lot to offer, finding your peers in person is a great way to go deeper into developing a community to support you in your work. Plus, you need to learn how to collaborate if you want to work with a group to develop exhibits or projects. Photography can also be a tool to bring together other communities too, giving voice to those who are often unseen in the media. Community based photography projects offer a way to collaborate or cooperate with community groups to bring new content to the public eye and give back with your developing photography skills. Let's take a deeper look at this, as well as how to develop your own artistic voice and recognize the voice and style of other photographers.

## What will you learn in this unit?

- Discuss the importance of photography clubs, today and throughout photographic history
- Connect the changes in photography to the technological changes that have happened in the medium
- Distinguish between collaboration, cooperation, and teamwork and integrate the collaborative process into group projects
- Engage community members in photography projects
- Assess the artistic voice and style of famous photographers and peers

UNIT 6 Assignments	
Assignment	Туре

Appendices page 2488 Pennwood Cyber Charter School

Unit 6 Critical Thinking Questions	Homework
Unit 6 Lab	Homework
Unit 6 Activity	Homework
Unit 6 Discussion 1	Discussion
Unit 6 Discussion 2	Discussion
Unit 6 Quiz	Quiz

## Unit 7: Digital Video: Production and Post-Production

Digital photo overload! How do the professionals handle the thousands of photos they create? You know how to organize them in folders, but how do you pick which ones to show in your portfolio? As you'll quickly see, it's important to learn strategies for culling the masses of photos into a concise, organized portfolio with a theme. Putting together your portfolio with a theme, an audience in mind, and good formatting will allow you to apply for art schools or gallery shows, bringing your photography to the next level. Developing skills that will support your professional career, including soft skills and business skills for the budding photography entrepreneur, is also key. After all, by keeping your photography ideas organized you'll be better set to inspire new ones as you continue as a student, amateur, or even professional photographer.

### What will you learn in this unit?

- Analyze and organize your process for choosing portfolio photos
- Tailor your portfolio to the intended audience, whether it is art school, a gallery show, or a client
- Apply soft skills like adaptability, interpersonal communication, and time management to support a photography career
- Develop a plan to continue to learn technical skills, business skills, and to grow as a creative photographer, whether amateur, student, or professional

UNIT 7 Assignments	
Assignment	Туре
Unit 7 Critical Thinking Questions	Homework
Unit 7 Lab	Homework

Appendices page 2489 Pennwood Cyber Charter School

Unit 7 Activity	Homework
Unit 7 Discussion 1	Discussion
Unit 7 Discussion 2	Discussion
Unit 7 Quiz	Quiz

## **Unit 8: Presenting Your Portfolio**

Ready, set, take a bow! It's time to reflect on your photography, linking it to other photographers both past and contemporary, and also contemplate how far you have come during this course. Remember to take inspiration from other photographers *and* your own progress and use it to propel you to finalize your portfolio, making it as polished and fabulous as you can. Finally, take a deep breath and look forward to the possible ways that you can incorporate your photography skills into your life whether as a career, a useful addition to your job skills, or a satisfying hobby.

### What will you learn in this unit?

- Connect your photographic work to that of famous photographers of yesterday and today
- Analyze your progress and creatively write and revise your artist's statement
- Sequence your portfolio in an aesthetically pleasing way
- Research, identify, and pursue job or avocational opportunities in photography

UNIT 8 Assignments	
Assignment	Туре
Unit 8 Critical Thinking Questions	Homework
Unit 8 Lab	Homework
Unit 8 Activity	Homework
Unit 8 Discussion 1	Discussion
Unit 8 Discussion 2	Discussion
Unit 8 Quiz	Quiz

# **Digital Photography 1b Final Exam**

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from units five to eight in this course the last four units. (Note: You will be able to open this exam only one time.)

FINAL Assignments	
Assignment	Туре
Final Exam	Exam
Final Exam Discussion	Discussion



#### **Driver's Education**

Course Instructional Time: 85 hours

#### **Instructional Activities:**

Throughout the course, students will have regular instructional contact with their teachers and with other students through a combination of phone calls, WebMail messages, synchronous learning sessions, message boards, discussion boards, teacher virtual office hours, face-to-face interaction, and the daily review of assignments via the electronic grade book.

#### **Course Summary:**

In this course, the student will learn the fundamental skills for responsible driving. This course emphasizes the mechanics of driving, execution of driving operations, and rules of safe driving. The student will identify and recognize traffic laws, signs and other markings, and basic checks on a vehicle. In addition, the student will learn the rules for sharing the roadway, responding to weather conditions, and other vehicle emergencies.

#### **Course Outline**

#### 1. The Driving Task

- 1. Introduction to the Course
  - Describe the three parts of the highway transportation system
  - Explain how the National Highway Safety Act affects drivers
  - Explain how the National Traffic and Motor Vehicle Safety Act helps keep drivers and passengers safe
- 2. You Are the Driver
  - Describe mental, social, and physical factors that might affect your driving ability and how these skills help you be a low-risk driver
  - Analyze the four steps in the IPDE process in relation to a fictitious driving situation
  - Explain the legal, financial, environmental, and personal responsibilities that drivers have and give an example of each
  - Describe the stages of a graduated driver license program and the purpose of each
  - Explain the purpose of the organ donor program
  - Express the implied consent law in two cause-and-effect statements
- 3. Signs, Signals, and Roadway Markings
  - List the different categories of road signs by color and purpose
  - Explain what to do at an intersection in these situations: green, yellow, or red light; arrows; flashing lights; lane signals; pedestrian in crosswalk; traffic-control officers' signaling
  - Describe proper use of road and street markings, including center lines (solid, broken, yellow, and white); highway exit ramps; railroad and school crossings; and parking restrictions
  - Explain the effect and purpose of rumble strips and raised roadway markers
- 4. Basic Vehicle Operation
  - Describe how to use the operational controls in vehicles

- List communication and comfort devices that are available for use in vehicles
- Create a labeled diagram showing the purposes of the gauges and warning lights on a vehicle's instrument panel
- Identify steps you can take to reduce risk while walking to your vehicle and before getting into your vehicle
- Describe smooth acceleration and braking actions and why they are important
- Explain how, when, and why you should choose a driving target
- Compare the functions, advantages, and disadvantages of automatic and manual transmissions

#### 5. Performing Basic Maneuvers

- Explain when and how to use vehicle mirrors, including rearview mirrors, outside mirrors, and convex mirrors
- Describe the steps and risks involved in backing up a vehicle
- Explain how to make left turns, right turns, and turnabouts, including lane positioning and use of signal lights
- Describe the different types of turnabouts and when to use each type
- Explain how to park a vehicle, including angle, perpendicular, and parallel parking methods
- Compare the reasons for choosing angle, perpendicular, or parallel parking

#### 6. The Driving Task Unit Test

There are no objectives for this lesson.

#### 2. Being a Responsible Driver

- 1. Managing Risk and the IPDE Process
  - Outline the key components of the Identify part of IPDE
  - Describe steps drivers can take to implement the Prediction part of IPDE
  - List the options available to drivers when implementing the Decide part of IPDE
  - Describe the differences between the three lane positions within a single lane
  - Identify the three actions a driver has to choose from when carrying out the Execute part of IPDE
  - List the options that a driver has for communicating with other drivers
  - Explain why it is critical that drivers selectively use the IPDE Process

#### 2. Effects of Driver Condition

- Describe how emotions can affect your ability to drive and how you can manage your emotions
- Describe the relationship between driving and different vision issues
- List ways that your senses can make you a safer driver
- Identify possible sensory distractions and ways to manage them
- List actions drivers can take to combat fatigue
- Describe ways that medicines, carbon monoxide, smoking, aging, and illnesses affect drivers
- Explain how adaptations can help drivers with permanent disabilities to compensate

#### 3. Alcohol, Other Drugs, and Driving

- Describe the mental and physical effects alcohol has on people and the problems alcohol can cause for drivers
- Explain the significance of blood-alcohol concentration (BAC) and the factors that affect it
- Explain the relationship between driving and different drugs including over-the-counter medicine, prescription medicine, depressants, stimulants, hallucinogenic drugs, and the combination of alcohol and drugs
- Explain laws and choices that relate to a person who is driving under the influence
- Explain what peer pressure is, the problems it can cause, and how to say no to it so you can make responsible decisions on your own

#### 4. Managing Distractions

- Compare distractive and inattentive driving including examples of each
- List the four distraction classifications with examples of each and how to avoid them
- Explain the dangers of using a mobile communications device while driving
- List the three categories of inside-the-vehicle distractions with examples of each and how to avoid each
- List the three categories of outside-the-vehicle distractions with examples of each and how to avoid each

#### 5. Being a Responsible Driver Unit Test

There are no objectives for this lesson.

#### 3. Controlling Your Vehicle

#### 1. Natural Laws and Car Control

- Describe how inertia, momentum, energy of motion, and gravity affect a vehicle
- Explain traction in relation to car control, tread and proper inflation, driver actions, and traction reduction
- Explain vehicle control in relation to gravity, vehicle balance, speed, sharpness of curves, vehicle load, and road shape
- Explain factors that determine stopping distances and affect braking distances
- Identify factors that affect force of impact in a collision
- Describe the uses and benefits of safety belts and air bags
- Explain how to safely transport children in vehicles

#### 2. Negotiating Intersections

- Explain how to recognize and maneuver an intersection
- Explain how to know who has the right of way and how to handle it
- Describe how to both turn and go straight at intersections with traffic lights or signs
- Describe an uncontrolled intersection and how to both turn and go straight at uncontrolled intersections
- Describe passive and active railroad crossings and actions drivers should take at them
- Describe the benefits of roundabouts, how traffic flow compares between roundabouts and intersections with signals, and procedures for driving through roundabouts

#### 3. Sharing the Roadway

- Explain steps pedestrians and drivers can take to keep pedestrians safe
- Explain how drivers can search for and help protect cyclists
- Explain why riders of bicycles and mopeds are vulnerable on the roadway and guidelines they should follow
- Explain why and how drivers need to look out for motorcyclists
- Describe procedures and gear that can help keep motorcyclists and scooter riders safe
- Describe risks and procedures for following, passing, and meeting both large and low-speed vehicles
- Explain the rules regarding driving near school buses and emergency vehicles

#### 4. Driving in Adverse Conditions

- Describe how drivers can best deal with low-visibility situations
- Explain how drivers can make their vehicles more visible at dawn and dusk
- Explain how drivers can deal both with night driving and with bright headlights at night
- Explain how to drive safely in rain and snow
- Describe precautions for driving in windy conditions, hot weather, and cold weather

#### 5. Handling Emergencies

- List actions to handle each of these situations: tire failure, brake failure, engine or steering failure, loss of forward vision, vehicle fires
- Explain how to safely continue driving down the road if one or more wheels goes off the road or if you have to make an emergency swerve
- Explain how to handle these driving risks: potholes, too-fast curves, and a vehicle sinking in water
- Describe ways to avoid or minimize collisions
- List steps to take if a collision occurs
- Explain financial responsibility law and how it relates to insurance
- List types of vehicle insurance and factors that affect the cost of insurance
- 6. Controlling Your Vehicle Unit Test

There are no objectives for this lesson.

#### 4. Driving in Different Environments

- 1. Driving in City Traffic and Rural Areas
  - Identify difficulties with city driving and tips for safe city driving
  - Describe how to use a 3-second following distance and how to safely manage a tailgater
  - Explain how to cover the brake and why you would do so
  - Identify difficulties with driving on rural roadways and tips for safe rural driving
  - Explain safe handling of curves, hills, intersections, two-lane roads, multilane rural highways, following distances, passing, and being passed
  - Explain how to safely deal with slow-moving vehicles, animals, and railroad crossings

#### 2. Driving on Highways

- Describe the different types of highways and interchanges
- Explain procedures and possible problems when using entrance ramps, acceleration lanes, and merge lanes
- Describe how to use the IPDE Process on the Interstate Highway System and when exiting a freeway
- Identify the steps and possible problems when exiting a freeway
- Describe the risks drivers face due to highway hypnosis and velocitation
- Explain the procedures to follow if you need to pull your car over to the shoulder
- Describe toll plazas, the risks associated with them, and how drivers can reduce the risks
- 3. Driving in Different Environments Unit Test

#### 5. Final Exam

1. Final Exam