

# Obridge Academy Catalog 2021



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Art Appreciation	1.0	1
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English 9	1.0	10
English 10	1.0	12
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Mandarin Chinese I	1.0	17
Mandarin Chinese I	1.0	18
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Spanish II	1.0	20
Health / Physical Education		
Health	0.5	21
Physical Education	0.5	22
Stress Management I	0.5	23
Health Science		
Intro to Nursing	0.5	24
Mathematics		
Algebra I	1.0	31
Algebra II	1.0	33
Consumer Math	0.5	35
Geometry	1.0	36
Math for Daily Living	1.0	38
Pre-Calculus	1.0	39
Trigonometry	0.5	41
Music		
Music Appreciation	1.0	42
Science		
Biology I	1.0	49
Chemistry I	1.0	51
Earth Science	1.0	53





Environmental Science	1.0	54
Marine Biology	0.5	55
Physics I	1.0	56
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Social Studies		
American History	1.0	65
Economics	0.5	66
US Government	0.5	67
World History	1.0	68
Social Sciences		
Criminal Justice	0.5	69
Forensics	1.0	70
Personal Finance	0.5	71
Psychology	1.0	72
STEM Computer Programming/Computer Science		
Intro to Computers	0.5	73
Introduction to Computer Science through Java	1.0	74
Intro to Game Industry	1.0	75



College Credit	Credits	Page
English Composition	1.0	76
Mandarin Chinese I	1.0	78
Music Appreciation	1.0	42

College Credit



# Art / Visual Arts

# **Art Appreciation**



#### COURSE DESCRIPTION

Art is exciting! It is also controversial and can mean different things to different people. In this course you will experience art through looking at the history of art and expression, while examining current trends and types of art. You will learn art terminology, critique artworks, write a research paper, create a piece of art yourself and finally, develop a presentation as your final exam.

You will view art by searching on the Internet and finding relevant sites, but watching YouTube and other videos, and by 'visiting' online art museums.

You will interact with other students through the Discussion Board and through the Virtual Classroom.

The course will consist of 18 major units, divided equally into two semesters. The final will be a special presentation that you design.

# CHAPTERS

127 100

- Ch.1 What is art?
- Ch.2 Design, Graphic & Otherwise
- Ch.3 Public Art: Murals and Graffiti
- Ch.4 Art history overview. Art in a Changing World
- Ch.5 Criticism: Reading and Writing about Art
- Ch.6 Modern Art
- Ch.7 The Artist. Focus on the Individual
- Ch.8 Architecture
- Ch.9 Still life (Critique)
- Ch.10 Photography
- Ch.11 Creativity, the Artist and Genius
- Ch.12 Sculpture
- Ch.13 Craft, Folk Art
- Ch.14 Portrait
- Ch.15 Painting
- Ch.16 Art in Everyday Life
- Ch.17 Final Project

#### COURSE OBJECTIVES

Understand that "Art is the Mirror of Mankind". Examine the various approaches to art and the materials and techniques employed. Classify selected works and their creators. Explore the historical development of painting, architecture and sculpture. Develop a familiarity with the visual language of art and the various media employed. Develop a fondness for art and history.



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# Theatre



#### COURSE DESCRIPTION

This course is designed for students with little or no theatre experience, and promotes enjoyment and appreciation for all aspects of theatre. Classwork focuses on the exploration of theatre literature, performance, historical and cultural connections, and technical requirements. Improvisation, creative dramatics, and beginning scene work are used to introduce students to acting and character development. Incorporation of other art forms in theatre also helps students gain appreciation for other art forms, such as music, dance, and visual art.

#### **CHAPTERS**

Theatre

- Ch.1 Art and the Artist
- Ch.2 What is Theatre
- Ch.3 The Audience
- Ch.4 Methods for Analyzing
- Ch.5 Writing Theatrical Reviews
- Ch.6 The Playwright
- Ch.7 The Producer
- Ch.8 The Director
- Ch.9 The Actor
- Ch.10 The Designers
- Ch.11 Greek Drama
- Ch.12 Roman Drama
- Ch.13 Medieval Drama
- Ch.14 Italian Renaissance Theatre
- Ch.15 English Renaissance / Shakespeare
- Ch.16 Neoclassic Drama
- Ch.17 Restoration Drama
- Ch.18 Realistic Drama
- Ch.19 Anti Realism
- Ch.20 Modern Theatre
- Ch.21 Final Exam

#### **COURSE OBJECTIVES**

Students will be introduced to all aspects of the theatre as a living art form. Students will gain an appreciation for and an understanding of the practical and historical aspects of the theatre and the theatre experience as they relate to:

- 1. The origins of theatre in myth and ritual.
- 2. The basic elements of actor/ space/ audience.
- 3. Dramatic forms and conventions.
- 4. The theatre artists and theatre as a collaborative art.
- 5. Commercial realities of theatrical production.
- 6. Dramatic theory and criticism.
- 7. Elements necessary to bring a dramatic script to life.



# English

# **English Language Arts I**



#### COURSE DESCRIPTION

This course primary emphasis is on the careful reading and analysis of literature from various literary selections. Students also gain further experience in narrative, descriptive, and essay writing. They will continue to develop their vocabulary and to refine their understanding and use of their formal English grammar and mechanics.

#### **CHAPTERS**

English Language Arts

Ch.1 - Reading: Informational Literature

- Locating Reference Sources
- Table of Contents and Indexes
- Fact and Opinion
- Evaluate Text: Facts, Opinions and Exaggerations
- · Main Idea Relevant vs. Irrelevant Information
- Main Ideas and Supporting Details
- Condense, Combine, or Categorize New Information
- Identify Information That is Implied Rather Than Stated
- · Facts and Opinions
- Text Features
- Use Text Features to Understand Informational Texts
- · Recognize Organizational Formats
- · Main Idea and Critical Details of Expository Text
- Functional Text
- · Locate Details
- · Draw Conclusions and Make Inferences
- · Persuasive Strategies
- · Author's Purpose in Writing
- Locate Information Using Organizational Features
- Distinguish Fact from Opinion in Persuasive Text
- Missing Information
- Identifying Text Features in Functional Text
- Interpret Graphic Features
- Identify the Author's Purpose (Expository Text)
- Knowledge of Structure, Content and Vocab
- · Reading: Informational Literature Test

#### Ch.2 - Reading: Literature

- Identify the Components of a Plot
- Identify the Theme



- Aspects of the Setting
- · Author's Point of View
- Distinguish Between Major and Minor Characters
- · Structural Elements of Poetry
- Creating Feelings in Text
- · Literary Terms and Author's Message
- Various Genres
- · Identify Literary Elements
- · Reading: Literature Test

#### Ch.3 - Language

- Multiple Meaning Words
- · Effect of Root Words and Affixes
- Context Clues: Unfamiliar Words
- Meanings and Features of Words
- Thesaurus: Synonyms and Antonyms
- · Use Context to Identify Multiple Meaning Words
- · Pronouns

English Language Arts I

· Language Test



# English Language Arts II



#### COURSE DESCRIPTION

This course is designed to provide students with reading, writing and research/inquiry opportunities. Students will read literature from several genres, and will use the writing process to develop various forms of writing including a research paper. The objective of this class is to teach students disciplined and effective reading and writing skills necessary for success in future courses.

# CHAPTERS

English Language Arts 99

Ch.1 - Reading Informational Text

- Point of View
- · Meanings of Words and Phrases
- Connect Relationships
- · Analyzing Interactions Between Individuals, Events, and Ideas
- Determining Meaning and Analyzing Word Choice
- Analyzing Interactions Between Individuals, Events, and Ideas
- Locate Specific Information/Organizational Features
- Apply Thinking Skills to Interpret Data, Facts and Ideas
- Knowledge of Structure, Content and Vocabulary Informational Text
- Condense, Combine or Categorize Information
- Relevant vs. Irrelevant Information
- · Compare and Contrast Information From a Variety of Sources
- Validity and Accuracy
- · Restate or Summarize the Main Idea
- Making Inferences and Drawing Conclusions
- Using Reading Strategies
- Directions and Procedures
- Interpreting Graphic Features
- Fact and Opinion Expository Text
- · Author's Use of Elements Expository Text
- · Author's Purpose: Expository Text
- · Use Information from Text to Determine Sequence
- Locate Information Using Organizational Features Expository Text
- Fact vs Opinion
- · Interpreting Functional Text
- · Restate or Summarize the Main Idea
- Explain How Authors Use Elements
- Primary and Secondary Sources
- · Use Information from Text Features
- Unit Assessment Reading Informational Text

Ch.2 - Context Clues: Multiple Meaning Words

- Narrative Point of View
- Identifying Poetic Elements
- Language Creates Feelings
- Interpret Characters, Plot, Setting



- Literary Terms Convey Message
- Identify the Structural Elements of Poetry
- Structural Elements of Poetry
- Contrast Points of View in Literature
- Describe a Character
- Draw Conclusions About the Style and Mood
- Identify Various Genres of Fiction
- Identifying Multiple Themes
- Analyze Plot Development
- Unit Assessment Reading Literature

#### Ch.3 - Language

- Functions of Phrases
- Spelling
- Capital Letters
- Commas
- Misplaced and Dangling Modifiers
- . Independent and Dependent Clauses .
- Four Kinds of Sentences
- Spelling

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English Language Arts 99

- Commas
- Capital Letters
- Function of Phrases
- Figurative Language, Word Relationships, and Nuances
- . Misplaced and Dangling Modifiers
- . Independent and Dependent Clauses
- . Four Kinds of Sentences
- Figurative Language, Word Relationships, and Nuances
- . Meanings of Words and Reference Aids
- . Unfamiliar Words and Context Clues
- . Root Words and Affixes
- . Context Clues: Multiple Meaning Words
- . Using Context: Multiple Meaning Words
- . Unit Assessment Language



# English Language Arts III



#### COURSE DESCRIPTION

This course provides students a general survey of selected literature, grammar and vocabulary study, and formal writing. Students develop their reading comprehension, writing, and speaking skills through an in depth analysis of fiction and nonfiction novels, functional documents like maps and charts, as well as film and art.

# CHAPTERS

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English Language Arts 999

Ch.1 - Reading Informational Text

- Expository Text Fact and Opinion
- Locate Information Using Organizational Features
- · Using Information From Text Features Functional Text
- Use Knowledge of Structure, Content and Vocabulary in Informational Text
- Differentiate Between Primary and Secondary Sources
- Author's Purpose Expository Text
- Use Reading Strategies to Interpret Text
- Summarize the Main Idea Expository Text
- Interpreting Details from Functional Text
- · Restate the Main Idea Expository Text
- Author's Purpose for Writing Text
- Interpret Graphic Features Expository Text
- Author's Use of Elements
- Evaluating Validity and Accuracy
- · Interpret Data, Facts & Ideas
- Knowledge of Structure, Content, and Vocabulary
- Condense, Combine or Categorize New Information
- Distinguishing Relevant vs. Irrelevant Information
- · Identify Missing or Unclear Information
- Unit Assessment: Reading Informational Text

#### Ch.2 - Reading Literature

- Relevance of Setting on Mood and Tone
- Structural Elements of Poetic Forms
- Identify Common Structures
- · Analyzing Plot Development
- Identify Author's Point of View
- Literary Terms Convey Author's Message
- Author's Use of Language Creates Feelings
- Describing a Character
- · Identify Poetic Elements
- Context Clues
- · Reference Aids
- Meaning of Vocabulary Using Root Words and Affixes
- Using Context for Unfamiliar Words



- Active and Passive Voice
- Verbals
- The Mood of Sentences
- · Pauses and Breaks in Sentences
- · Denotation and Connotation
- Figures of Speech
- Denotation and Connotation
- Pauses and Breaks in Sentences
- The Mood of Sentences
- Verbals
- · Active and Passive Voice
- Unit Assessment: Reading Literature

#### Ch.3 - Language

- Context Clues
- Meaning of Vocabulary Using Root Words and Affixes
- · Using Context for Unfamiliar Words
- Active and Passive Voice
- · Verbals

English Language Arts 199

- · The Mood of Sentences
- · Pauses and Breaks in Sentences
- · Denotation and Connotation
- Figures of Speech



# **Creative Writing**



#### COURSE DESCRIPTION

The creative writing curriculum is designed to give students experience in many different writing formats including poetry, plays, journals and more. They will also learn how to critique, edit and revise their writing as well as the writing of others. Included in the curriculum is the opportunity to study well-renown authors in each genre for inspiration.

#### CHAPTERS

Greative Writing

- Ch.1 Introduction to Creative Writing
- Ch.2 Fiction Writing
- Ch.3 Poetry Writing
- Ch.4 Write Focusing on Literary Elements
- Ch.5 Play Writing
- Ch.6 Dialogue Writing
- Ch.7 Narratives/Memoirs Writing
- Ch.8 Writing for Children
- Ch.9 Articles/Editorials Writing
- Ch.10 Interview Writing
- Ch.11 Letter Writing
- Ch.12 Essay Writing
- Ch.13 Review Lessons



# **English 9**



# **COURSE DESCRIPTION**

Below are the RRT Modules for English 9 that are available should a district not provide their own scope and sequence for a custom curriculum developed from our bank of standards-aligned lessons. These standards-aligned lessons can be reconfigured from the extended text curriculum, short text curriculum, and the Common Core grammar curriculum. Lessons listed below in the modules follow New York Common Core adopted standards for the Reading and Writing. In addition, as Grammar is decided at the local level as far as alignment for modules, you will find the available Grammar lessons in the Grammar curriculum listed at the end of the English descriptions. In a base RRT course, these will be interspersed unless a scope and sequence is shared by the district. Lessons are designed using a best practice model that includes scaffolding, vocabulary, guided practice, independent practice, and written response opportunities for students to evaluate, debate, and summarize.

#### Module A

English 9

#### Short Texts

- The Necklace
- The Bill of Rights
- Hope is the Thing with Feathers
- · Declaration of Independence

#### Extended Text

- Romeo and Juliet
- **Research Project**
- · Research Project: Grade 9 Module A

#### Module B

- Short Texts
- The Tell-Tale Heart
- The Raven
- Day of Infamy Speech
- A Scandal in Bohemia
- · What to the Slave is the Fourth of July?
- **Extended Text**
- Common Sense
- **Research Project**
- Research Project: Grade 9 Module B

#### Module C

- Short Texts
- A Poetry Reading at West Point
- excerpt from The Awakening
- FDRs First Inaugural Address
- The Wood-Pile
- Excerpt from A Doll's House
- FDR's First Fireside Chat



- **Extended Text**
- Death of a Salesman
- **Research Project**
- Research Project: Grade 9 Module C

#### Module D

- Lift Every Voice and Sing
- Biography of Emerson
- 1 Samuel 17
- Self-Reliance
- excerpt from Metamorphosis
- **Extended Text**
- The Scarlet Letter
- **Research Project**
- Research Project: Grade 9 Module D

English 9



# English 10



#### COURSE DESCRIPTION

Below are the RRT Modules for English 10 that are available should a district not provide their own scope and sequence for a custom curriculum developed from our bank of standards-aligned lessons. These standards-aligned lessons can be reconfigured from the extended text curriculum, short text curriculum, and the Common Core grammar curriculum. Lessons listed below in the modules follow New York Common Core adopted standards for the Reading and Writing. In addition, as Grammar is decided at the local level as far as alignment for modules, you will find the available Grammar lessons in the Grammar curriculum listed at the end of the English descriptions. In a base RRT course, these will be interspersed unless a scope and sequence is shared by the district. Lessons are designed using a best practice model that includes scaffolding, vocabulary, guided practice, independent practice, and written response opportunities for students to evaluate, debate, and summarize.

#### Module A

English 10

#### Short Texts

- The Celebrated Jumping Frog of Calaveras County
- The Talented Tenth
- The Passionate Shepherd to His Love
- Genesis 37 45
- The Mark on the Wall
- Extended Text
- Jane Eyre
  - Research Project
- Research Project: Grade 10 Module A

#### Module B

#### Short Texts

- President John F. Kennedy's Inaugural Address
- War of the Worlds: Chapter 1
- The Declaration of Sentiments, Seneca Falls 1848
- Ain't I a Woman
- How it Feels to be a Colored Me
   Extended Text
- A Letter from Birmingham Jail Research Project
- Research Project: Grade 10 Module B

#### Module C

- The Death of the Moth
- Because I Could Not Stop for Death



- The Stanford Prison Experiment
- Home Burial
- Porphyria's Lover
- President George Washington's Farewell Address
   Extended Text
- Macbeth
- Research Project
- Research Project: Grade 10 Module C

#### Module D

- Emancipation Proclamation
- Dr. Heidegger's Experiment
- The Truman Doctrine
- The Death of the Moth
- Because I Could Not Stop for Death
   Extended Text
- Prometheus Bound
- Research Project
- Research Project: Grade 10 Module D

English 10



# English 11



# COURSE DESCRIPTION

Below are the RRT Modules for English 11 that are available should a district not provide their own scope and sequence for a custom curriculum developed from our bank of standards-aligned lessons. These standards-aligned lessons can be reconfigured from the extended text curriculum, short text curriculum, and the Common Core grammar curriculum. Lessons listed below in the modules follow New York Common Core adopted standards for the Reading and Writing. In addition, as Grammar is decided at the local level as far as alignment for modules, you will find the available Grammar lessons in the Grammar curriculum listed at the end of the English descriptions. In a base RRT course, these will be interspersed unless a scope and sequence is shared by the district. Lessons are designed using a best practice model that includes scaffolding, vocabulary, guided practice, independent practice, and written response opportunities for students to evaluate, debate, and summarize.

#### Module A

English 11

#### Short Texts

- The Rime of the Ancient Mariner
- Bartleby, The Scrivener
- Excerpt from Society and Solitude
- Goblin Market
- The Minister's Black Veil
- Excerpt from Democracy in America
   Extended Text
- Hamlet
  - Research Project
- Research Project: Grade 11 Module A

#### Module B

#### Short Texts

- The Middle Passage
- An Occurrence at Owl Creek Bridge
- Sinners in the Hands of an Angry God
- A Modest Proposal
- My Last Duchess

Extended Text

- Narrative of the Life of Frederick Douglass
   Research Project
- Research Project: Grade 11 Module B

#### Module C

#### Short Texts

Shakespeare's Sonnet XXIX



- The Gettysburg Address
- The Blue and the Gray
- Excerpt from Gulliver's Travels
- Barack Obama: A More Perfect Union
   Extended Text
- The Crucible
   Research Project
- Research Project: Grade 11 Module C

#### Module D

English 11

- Plessy v. Ferguson
- The Cherry Orchard
- Brown v. Board of Education
- Excerpt from The Trial
- Extended Text • The Great Gatsby
- Research Project
- Research Project: Grade 11 Module D



# English 12



# **COURSE DESCRIPTION**

This course emphasizes the study of literature in the context of specific historical periods based on Florida standards. Students will continue to progress as writers and critical thinkers through the study of a variety of writing techniques, communication skills, literary genres and non-fiction texts. Students will strengthen their reading and writing skills and practice academic and vocational reading and writing, including the types of writing placement tests many universities require.

#### **CHAPTERS**

- Ch.1 Narrative Writing
- Ch.2 Beowulf
- Ch.3 Canterbury Tales
- Ch.4 Othello
- Ch.5 Julius Caesar
- Ch.6 Descriptive Writing
- Ch.7 19th Century British Literature
- Ch.8 British Poetry
- Ch.9 The Beatles and Monty Python
- Ch.10 Argumentative Writing





# Foreign Language

# Mandarin I



#### **COURSE DESCRIPTION**

The World of Mandarin Chinese has a distinct design. The six sections, or Acts, are based on a film shot in the city of Chongging using young actors. The Acts are centered on the lives of two young men and two young women. In reality, the four teenagers are film students at a public university. There are three Scenes within each Act that focus on real situations where language is spoken.

Traditionally, languages are learned in a classroom setting. However, languages can also be learned online. Through our new approach, you will have access to a real Chinese teacher and will have a Chinese 'speaking partner.'

#### CHAPTERS

Act One: The Inside World Act Two: Finding your Way in the World Act Three: The World of Food

#### **COURSE OBJECTIVES**

At the end of The World of Mandarin Chinese students are expected to demonstrate: Confidence in speaking Chinese, coupled with reduced anxiety of making an error. An understanding of an ancient culture that is different from their own culture. The ability to speak about personal interests, national origin, countries, food, music, and a host of other basic topics.





# Mandarin II



# COURSE DESCRIPTION

The World of Mandarin Chinese has a distinct design. The six sections, or Acts, are based on a film shot in the city of Chongqing using young actors. The Acts are centered on the lives of two young men and two young women. In reality, the four teenagers are film students at a public university. There are three Scenes within each Act that focus on real situations where language is spoken.

Traditionally, languages are learned in a classroom setting. However, languages can also be learned online. Through our new approach, you will have access to a real Chinese teacher and will have a Chinese 'speaking partner.'

#### CHAPTERS

Act Four: The Digital World Act Five: The Outside World Act Six: The World of Learning

#### COURSE OBJECTIVES

At the end of The World of Mandarin Chinese students are expected to demonstrate: Confidence in speaking Chinese, coupled with reduced anxiety of making an error. An understanding of an ancient culture that is different from their own culture. The ability to speak about personal interests, national origin, countries, food, music, and a host of other basic topics.



# Spanish I



#### COURSE DESCRIPTION

This course provides an introduction for learning the Spanish language. Topics covered include sounds, basic vocabulary, beginning grammar rules, and discussion of culture. Interactive presentations and notes provide the foundation for this course. Students are assessed through quizzes and tests.

#### CHAPTERS

Spanish 7

- Ch.1 Las Actividades Familiares
- Ch.2 Más Actividades y Descripciones
- Ch.3 Ser o no ser
- Ch.4 Más Vocabulario de la Vida Diaria
- Ch.5 ¿Dónde está la fiesta?
- Ch.6 Todo El Mundo

#### COURSE OBJECTIVES

Use of Spanish for communication. This course stresses the essentials of Spanish and it is to enable the student:

- a) To develop speaking ability and writing skills.
- b) To use Spanish grammar and vocabulary appropriately.
- c) To increase student's readings skills

After completing the course, students will be able to:

a) Engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions. Understand and interpret written and spoken Spanish on a variety of topics.

b) Present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.

c) Demonstrate an understanding of the practices and perspectives of the Spanish and Hispanic cultures, and make comparisons between these cultures and your own.

d) Reinforce and further your knowledge of other disciplines (math, science, art, etc.) through the use of Spanish.

e) Show evidence of becoming a life-long learner by using Spanish for your personal enjoyment and enrichment.



# Spanish II



# COURSE DESCRIPTION

Using a communicative approach Spanish 1 course stresses the fundamentals of pronunciation, grammar, vocabulary, useful phrases and the ability to understand read, write and speak simple Spanish. Basic information about culture and customs of Hispanic Countries will be given.

# CHAPTERS

Spanish 99

- Ch.1 Getting to Know Someone
- Ch.2 Present Tense Review and Descriptions
- Ch.3 Getting Ready, Describing Family and School
- Ch.4 Discussing Past Events Part I
- Ch.5 Discussing Past Events Part II
- Ch.6 Discussing Childhood Events
- Ch.7 Making Comparisons
- Ch.8 Comparing Preterite and Imperfect
- Ch.9 Increasing Fluency in Conversation
- Ch.10 Expressing What I have Done
- Ch.11 Speaking About the Future
- Ch.12 Giving Direction
- Ch.13 Ordering Food and Other Conditional Tense Scenarios
- Ch.14 Putting it All Together

# COURSE OBJECTIVES

Use of Spanish for communication. This course stresses the essentials of Spanish and it is to enable the student:

- a) To develop speaking ability and writing skills.
- b) To use Spanish grammar and vocabulary appropriately.
- c) To increase student's readings skills

After completing the course, students will be able to:

a) Engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions. Understand and interpret written and spoken Spanish on a variety of topics.

b) Present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.

c) Demonstrate an understanding of the practices and perspectives of the Spanish and Hispanic cultures, and make comparisons between these cultures and your own.

d) Reinforce and further your knowledge of other disciplines (math, science, art, etc.) through the use of Spanish.

e) Show evidence of becoming a life-long learner by using Spanish for your personal enjoyment and enrichment.



# **Health / Physical Education**

Health



# COURSE DESCRIPTION

This course is designed to assist students in obtaining accurate information, developing lifelong positive attitudes and behaviors, and making wise decisions related to their personal health. Study will include personal health; mental, emotional, and social health; injury prevention and safety; nutrition and physical activity; alcohol, tobacco, and other drugs; growth, development, and sexual health.

#### CHAPTERS

Health

- Ch.1 Health & Wellness
- Ch.2 Mental Health
- Ch.3 Sexuality
- Ch.4 Reproduction
- Ch.5 Drugs, Alcohol and Tobacco
- Ch.6 Emergencies and First-Aid
- Ch.7 Nutrition

# COURSE OBJECTIVES

- Act with skill and reason to demonstrate an understanding of the concepts and behaviors that reduce health risks and enhance the health of self and others
- Demonstrate the ability to access, evaluate, and use health information, products, and services that influence health and well-being in a positive manner
- Demonstrate the use of appropriate health practices and behavior to promote a safe and healthy community when alone, with family, at school, and in other group settings



# **Physical Education**



# COURSE DESCRIPTION

The Physical Education course provides students with an alternative program comprised of a look into the lives of famous athletes and historical ventures within the field. The students will be given articles, videos, and be asked to complete writing activities that will contribute to an overall understanding of physical education.

#### **CHAPTERS**

Ch.1 – Famous Athletes

Ch.2 – Videos

Ch.3 – Writing (Opinions)

Ch.4 – Articles (Group 4)

Ch.5 – Articles (Grouped Assignments)

#### COURSE OBJECTIVES

- Demonstrate proficiency in all fundamental movement skills and patterns and competence in several specialized movement form (Skilled Movement)
- Apply movement principles and concepts to learning and developing motor skills and specialized movements forms (Movement Principles & Concepts)
- Achieve and maintain a health-enhancing level of personal fitness (Personal Fitness)
- Demonstrate responsible personal and social behaviors in physical activity settings (Responsible Behaviors)
- Demonstrate a physically active lifestyle, including activity within and outside of the physical education setting (Physical Active Lifestyle)





# Stress Management I



#### COURSE DESCRIPTION

This course studies the impact of stress upon the psychological and physiological function of the body and also explores the interaction with stress management techniques. This course does not constitute credit toward meeting the Physical Education GER requirement.

#### CHAPTERS

- Ch.1 Welcome to Class
- Ch.2 Stress Concepts
- Ch.3 Healthy Lifestyles
- Ch.4 Stress Relief
- Ch.5 Stress Is Everywhere
- Ch.6 Understanding Stress
- Ch.7 Pin-Pointing Stress in Life
- Ch.8 Targeting Stress Effectively
- Ch.9 Work Overload
- Ch.10 Surviving Problem Jobs
- Ch.11 Co-Workers and Stress
- Ch.12 Environmental Stress
- Ch.13 Performance Stress
- Ch.14 Reducing Stress
- Ch.15 Final Exam

#### **COURSE OBJECTIVES**

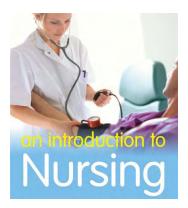
The course goal is to provide an understanding of the causes and effects of stress on a person's life and to introduce methods for enhancing positive health and reducing stress through a variety of relaxation, self-regulation and stress management strategies. The student will also gain knowledge and application skills for stress management interventions useful in a professional setting.





# **Health Science**

# Intro to Nursing



# COURSE DESCRIPTION

This course introduces students to essential characteristics of professional nursing practice in today's health care system and the interconnected global community. Concepts to be explored include the history and theoretical basis of the nursing profession, the profession as part of a wider health care community and delivery system, professional communication, self-understanding and self-care as means to promote health and wellness of self and others. An introduction to the responsibility of self-directed, life-long learning and evidence based practice is included. An emphasis will be placed on the complexity and holism of culturally sensitive nursing care in relation to the diversity of patients.

# CHAPTERS

Intro to Nursing

- Ch.1 Welcome to Class
- Ch.2 Basic Human Needs
- Ch.3 Communication Skills
- Ch.4 Reaction To Stress
- Ch.5 Transcultural Factors
- Ch.6 Adult Patient Care Unit
- Ch.7 Principles of Patient Hygiene
- Ch.8 Techniques of Body Mechanics
- Ch.9 Positioning and Ambulating
- Ch.10 Motion Exercise

# **COURSE OBJECTIVES**

- · Relate levels of measurements and means of data collection with study design and analytic purposes
- Describe underlying assumptions and foundations driving various quantitative and qualitative analyses.
- Recognize paradigmatic approaches relative to research questions
- Identify and apply methods appropriate to type of outcomes sought



# **Mathematics**

# 6th Grade Math



# COURSE DESCRIPTION

6th grade math as an introductory middle level math course. Students will learn about statistical thinking and organizing data. Students also will learn about problem solving, exponents, and order of operations. Students will also learn basic Algebra and Geometry. By the end of this course students should also be able to perform operations using numbers other than whole numbers. This includes working with decimals, fractions, and mixed numbers. Students will learn to convert fractions to decimals and decimals to fractions. They should also understand how to multiply, divide, add, and subtract decimals, fractions, and mixed numbers.

# CHAPTERS

"Grade Matu

#### Ch.1 - Geometry

- Identify the Parts of a Solid
- Areas of Quadrilaterals & Triangles
- Parts of Geometric Figures
- Constructing Geometric Figures
- · Areas of Polygons
- · Circumference and Area of a Circle
- · Similar Triangles
- Radius and Diameter
- Circumference and Area
- · Identifying Parts of a Circle
- Ordered Pairs
- Areas on the Coordinate Plane
- Areas of Irregular Polygons
- Volume of a Rectangular Prism
- Supplementary, Complementary and Vertical Angles
- Geometry Test

#### Ch.2 - Number System

- Operations on Mixed Numbers
- Using Positive and Negative Numbers to Describe Quantities
- Division of Fractions
- · Using Positive and Negative Numbers to Describe Quantities
- Graphing Points
- · Exponents: Prime Factorization
- Multiples and Least Common Multiples
- · Factors and Greatest Common Factor
- · Add, Subtract, Multiply and Divide Decimals
- · Multi-Digit Division
- Identifying Factors



- · Comparing and Ordering Numbers in Different Forms
- Integers: Addition and Subtraction
- · Absolute Value
- · Comparing and Ordering Numbers
- Estimating Percents
- · Identifying Percents
- Reciprocals
- Operations on Mixed Numbers
- · Rational Numbers on a Number Line
- Radicals: Inverse Relationships
- · Exponential Form
- Coordinate Geometry
- Multiply Multi-Digit Decimals
- Fractions, Decimals and Percents
- Multiply and Divide Fractions
- Multiplying Decimals
- Dividing with Decimals

#### Ch.3 - Expressions amd Equations

- Describing Relationships Using Independent and Dependent Variables
- Equivalent Expressions
- Proving Expressions are Equivalent
- Expressions Involving Exponents
- Describing Relationships Using Independent and Dependent Variables
- Proving Expressions are Equivalent
- Equivalent Expressions
- Expressions Involving Exponents
- · Expressions with Exponents
- Translating Verbal Expressions into Inequalities
- Solving Two-Step Equations
- Writing Algebraic Expressions
- Solving One-Step Equations
- Translating Verbal Expressions
- · Evaluate Expressions with Rational Numbers
- · Order of Operations

5th Grade Math

- Translating Mathematical Sentences
- · Expressions amd Equations Test

#### Ch.4 - Statistics and Probability

- Statistical vs. Non-Statistical Questions
- Summary Statistics
- Median, Mode and Range
- Predicting Experiment Results
- Compare Summary Statistics
- · Dependent Events
- Frequency Tables
- · Counting Principle
- · Interpreting Graphs
- Venn Diagrams
- Making Predictions Using Data
- Statistics and Probability Test



# 7th Grade Math



#### COURSE DESCRIPTION

This course is designed to assist students as they make the transition between the concrete subject of arithmetic and more abstract subjects like algebra and geometry. This is accomplished by working with variables, variable expressions, equations, inequalities, and formulas. Subjects covered in earlier math courses such as fractions, ratios, percents, exponents, roots, and probability are studied in further depth for greater mastery. The students also explore basic algebraic concepts and skills. The course is taught so that a wide range of abilities is challenged through riddles, puzzles, and more complex mathematical problems supplementing the daily coursework. In addition to the specific arithmetic, algebraic and geometric skills and concepts mentioned above, this course aims to develop students' ability to communicate technical information and mathematical knowledge, which places a heavy emphasis on the processes and reasoning to support answers as well as proper mathematical notation.

# CHAPTERS

Grade Math

Ch.1 - Geometry

- Volume and Surface Area of Solids
- · Cross Sections of Solids
- Supplementary and Complementary Angles
- Circles: Area and Circumference
- Parts of Geometric Figures
- · Classifying Triangles
- Surface Area of Prisms and Cylinders
- · Circumference of a Circle
- Pythagorean Theorem
- · Using Pythagorean Theorem
- · Interior Angles of Triangles
- Parts of a Circle
- · Angle Sums in Polygons
- Circumference and Area of Circle
- · Congruent Figures
- · Calculate Radius and Diameter from Area or Circumference
- · Identify the Parts of a Solid
- · Parts of a Circle
- · Angles and Parallel Lines 7
- · Using Scale Drawings
- · Interior Angles of Quadrilaterals

#### Ch.2 - Ratios and Proportions

- · Recognize and Represent Proportional Relationships
- · Unit Price Using Proportions
- Solving for Percents
- · Calculating Percents
- · Ratios & Rates
- Estimating Percentages



• Proportional Linear Equations

#### Ch.3 - Number System

- Irrational Numbers on a Number Line
- · Rational Numbers on a Number Line
- · Operations on Integers
- Irrational Numbers on a Number Line
- Multiple Representations of Numbers
- Integers: Multiplication and Division
- Addition and Subtraction
- Absolute Value
- Integers: Addition and Subtraction
- Multiplying and Dividing with Exponents

#### Ch.4 - Expressions and Equations

- Factor Expressions Using the GCF
- Estimating Percentages
- Writing Algebraic Expressions
- · Algebraic Patterns
- Translating Verbal Expressions
- · Evaluate Expressions with Rational Numbers
- Solving Two-Step Equations with Fractions and Decimals
- Areas of Compound Figures
- · Graphs and Tables
- · Adding and Subtracting Monomials
- Polynomials

#### Ch.5 - Exponents: Scientific Notation

- Comparing Data by Graph Shape
- Compare Summary Statistics
- Probability of Dependent or Independent Events
- Predicting Outcomes of Experiments
- Biased Data
- Inequalities
- Experimental Probability
- Comparing Outcomes to Predictions
- · Formulate Conclusions Based on Graphs
- · Finding All Possible Combinations
- · Range

Grade Math

- Predicting Outcomes
- · Conditional Probability
- Comparing Results
- Interpreting Graphs
- Predicting Results
- · Sample Space
- Tree Diagrams
- · Experiment Results as Fractions and Ratios
- Theoretical Probability



# 8th Grade Math



# COURSE DESCRIPTION

In Grade 8, instructional time should focus on three critical areas: (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation, and solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem.

# CHAPTERS

grade Ma

- Ch.1 Geometry
  - · Reflections and Translations
  - Transformations that Result in Congruent Figures
  - Transformations
  - Transformations Involving Dilations
  - Angles in Triangles
  - Angles and Parallel Lines
  - The Pythagorean Theorem
  - The Pythagorean Theorem and Its Converse
  - Distance Between Two Points
  - · Volume of Cones, Cylinders, and Spheres
  - · Reflections
  - · Using the Slope and y-intercept to Write the Equation of a Line

#### Ch.2 - Number System

- Rational and Irrational Numbers
- · Irrational & Rational Numbers on a Number Line
- · Estimating Number Locations
- Factors and Divisibility
- Ordering Small Numbers
- · Understanding Percents

#### Ch.3 - Expressions and Equations

- Working with Square and Cube Roots
- Solving Two-Step Equations with Fractions and Decimals
- Multiplying and Dividing Monomials
- · Solve a System of Equations by Graphing
- Solving Multi-Step Equations
- · Slope and the Equation of Lines
- Proportional Linear Equations
- · Operations on Very Large and Very Small Numbers
- · Exponents: Scientific Notation
- Multiplication and Division Rules for Exponents
- Exponents in Expressions



- · Slope and the Equation of Lines
- · Operations on Very Large and Very Small Numbers
- Dividing Polynomials by Monomials
- Solving Inequalities
- Slope-Intercept Form
- · Finding Values that Satisfy an Equation
- · Non-Perfect Square Roots
- · Graphing Inequalities
- · Add and Subtract Polynomials
- Factoring Trinomials

#### Ch.4 - Add and Subtract Polynomials

- Understand, Construct and Interpret Two-Way Tables
- · Solve Problems Using Linear Models
- · Lines to Show Data on a Scatter Plot
- · Outliers

8th Grade Math

- Theoretical vs. Experimental
- The Counting Principle
- · Directed Graphs
- · Misleading/Biased Data
- · Graphing Linear and Non-Linear Relationships



# Algebra I



#### COURSE DESCRIPTION

Common Core Algebra I begins with the fundamentals of algebra. The curriculum includes concepts such as equations, inequalities, descriptive statistics, and relationships between linear, exponential, and quadratic functions. Incorporated throughout the lessons are video tutorials and interactive presentations. Lessons are designed using a best practice model that includes scaffolding, vocabulary, prior knowledge, guided practice, independent practice, and written response opportunities for students to solve, analyze, and evaluate concepts.

# CHAPTERS

Ch.1 - Relationships between Quantities and Reasoning with Equations

· Using Units

Algebra

- Quantitative Problem Solving
- · Accuracy of Measurements
- · Interpreting Expressions
- · Creating Linear and Exponential Models to Solve Problems
- · Linear and Exponential Equations
- · Representing Constraints Using Equations and Inequalities
- · Solving Formulas and Equations for a Specific Variable
- · Steps for Solving Algebraic Problems
- · Solving One Variable Equations and Inequalities
- · Unit Assessment: Relationships between Quantities and Reasoning with Equations

#### Ch.2 - Linear and Exponential Relationships

- · Rational Exponents and Radicals
- · Systems of Equations
- · Solving Systems of Equations by Graphing
- · Solving Systems of Equations by Substitution
- · Solving Systems of Equations by Elimination
- · Solutions of an Equation Forming a Curve
- · Analyzing Systems of Equations
- · Graphing Linear Inequalities
- · Systems of Linear Inequalities
- · Understanding Functions
- Evaluating Functions
- · Recognizing Sequences as Functions
- · Key Features of Linear and Exponential Functions
- · Finding Appropriate Domains
- · Average Rate of Change
- Graphing Functions
- · Comparing Functions
- Building Functions
- · Arithmetic and Geometric Sequences



- · Family of Functions
- · Constructing Linear & Exponential Functions
- · Comparing Linear Growth and Exponential Growth
- · Interpret Parameters for Linear and Exponential Functions
- · Unit Assessment: Linear and Exponential Relationships

Ch.3 - Descriptive Statistics

- · Dot Plots, Histograms, and Box Plots
- · Comparing Data Sets
- · Effects of Outliers
- Two-Way Frequency Tables
- · Scatter Plots and Lines of Best Fit
- ' Using the Line of Best Fit
- · Interpreting the Line of Best Fit
- · Bivariate Statistics and Linear Regression
- · Correlation & Causal Relationships
- · Analyzing Data
- · Unit Assessment: Descriptive Statistics

Ch.4 - Quadratic Expressions and Equations

- · Interpreting Parts of an Expression
- · Equivalent Expressions Involving Exponents
- · Adding and Subtracting Polynomials
- · Multiplying Polynomials

Algebra 7

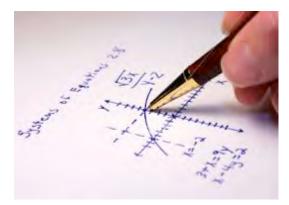
- Factor Trinomial Expressions
- · Seeing Structures in Expressions
- · Factor Polynomial Expressions
- · Factor to Find the Zeros of a Quadratic Function
- · Complete the Square to Find Max/Min of Quadratic Function
- · Creating Quadratic Equations to Solve Problems
- · Graphing Quadratic Equations and Functions
- · Rearrange Formulas and Equations Involving Squares
- · Completing the Square to Solve Quadratic Equations
- · Four Methods to Solve Quadratic Equations
- · Roots of Quadratic Equations (Graphically)
- · Solve Problems Involving Quadratic Equations
- · Solve Linear-Quadratic Systems Graphically
- · Solve Linear-Quadratic Systems
- · Unit Assessment: Quadratic Expressions and Equations

Ch.5 - Quadratic Functions and Modeling

- · Properties of Rational and Irrational Numbers
- · Key Characteristics of the Graphs of Quadratic Functions
- · Domain and Range
- · Average Rate of Change Quadratic Functions
- · Different Forms of Quadratic Functions
- · Comparing Key Characteristics of Common Functions
- · Piecewise Functions
- · Creating Functions
- · Transformations of Functions
- · Inverse Functions
- · Compare Exponential Growth to Linear and Quadratic Growth
- · Unit Assessment: Quadratic Functions and Modeling



# Algebra II



# COURSE DESCRIPTION

Algebra II expands the learning of foundational topics covered in Algebra, giving students a more complex understanding of the subject matter. The curriculum includes working with polynomial expressions and solving equations, including rational expressions. Concepts such as radicals, complex numbers, logarithms, and sequence and series are explained. The course concludes with the fundamentals of trigonometry including the unit circle, trigonometric graphs and translations, solving trigonometric equations and proving trigonometric identities as well as applications of trigonometry. Lessons are designed using a best practice model that includes scaffolding, vocabulary, prior knowledge, guided practice, independent practice, and written response opportunities for students to solve, analyze, and evaluate concepts. The lessons are designed according to the New York State Learning Standards.

# CHAPTERS

Algebra 7º

1A - Polynomials - From Base Ten to Base X

- Algebraic Patterns
- Multiplying Polynomials
- Dividing Polynomials
- Polynomial Identities
- Radicals and Conjugates
- Pythagorean Triples

1B - Factoring - Its Use and Its Obstacles

- Review: Factor Quadratics to Find Solutions and Zeros
- Factoring Quadratic Expressions When the Leading Coefficient is Greater Than One
- Factoring Fourth Degree Polynomials
- Factoring Polynomials Other Strategies
- Factoring Third Degree Polynomials
- Mastering Factoring Extending Strategies
- Analyzing the Graphs of Polynomial Functions
- The Remainder Theorem
- Solve Problems Using Polynomial Functions

1C - Solving and Applying Equations - Polynomial, Rational, and Radical

- Rational Polynomial Expressions
- Rational Polynomial Expressions Add, Subtract, Multiply and Divide
- Solving Rational Polynomial Equations
- Solving Radical Equations
- Solve Linear Systems in Three Variables
- Graphing Systems of Equations
- Focus-Directrix Definition of a Parabola
- Congruence and Similarity of Parabolas



- 1D Complex Numbers Overcome All Obstacles
  - Properties of Complex Numbers
  - Solving Polynomial Equations with Complex Solutions
  - The Fundamental Theorem of Algebra
- 2A Exponents and Logarithms
  - · Simplify Algebraic Expressions with Negative and Fractional Exponents
  - Rewriting Algebraic Expressions Involving Radicals as Fractional Exponents
  - Evaluate Numerical Expressions with Fractional or Negative Exponents
  - Graphing Exponential & Logarithmic Functions
  - Solving Exponential Equations
  - Evaluate Logrithmic Expressions in Any Base
  - · Properties of Logarithms: Rewriting Logarithm Expressions as One Equivalent Log
  - · Properties of Logarithms: Rewriting Single Logarithm Expressions as Multiple Logarithms
  - Solving Equations Involving Logarithms
  - Applications of Exponential Functions

### 2B - Series and Sequences

- Arithmetic Sequences
- Geometric Sequences
- Mathematical Patterns
- Sigma Notation & Summation of a Series
- Binomial Expansion

### 3A - Statistics

Algebra 77

- Gathering Data
- Types of Bias in Surveys
- Organizing Data
- Measures of Central Tendency
- Measures of Dispersion: Interquartile Range
- · Variance and Standard Deviation Including the Normal Curve
- Bivariate Statistics and Linear Regression
- Non-Linear Regression

#### 3B - Probability

- Introduction to Permutations and Combinations
- Permutations
- Combinations
- Theoretical Probability
- Sample Spaces
- Binomial Probability Formula
- Using the Normal Distribution to Approximate Binomial Probabilities



# **Consumer Math**



# COURSE DESCRIPTION

The Consumer Math Elective focuses on math applications in the real world. Students will be asked to solve common mathematical problems that they will encounter in real life. The units within the Consumer Math Elective include; deciding what you need and getting the best buy, covering your expenses, finding a place to live, choosing and buying groceries, buying a vehicle, and budgeting for recreation and planning a trip.

### CHAPTERS

Ch.1 - Deciding What You Need & Getting the Best Buy

Ch.2 - Covering Your Expenses

Ch.3 - Finding a Place to Live

Ch.4 - Choosing and Buying Groceries

Ch.5 - Buying a Vehicle

# COURSE OBJECTIVES

The student should be able to :

- Determine how much money they will earn
- Determine housing costs and monthly expenses
- Calculate expenses involved in buying and taking care of a car
- Calculate the expense of common home improvements
- Prepare, adjust and balance a budget
- Use math nskills to understand banking and investing



# Geometry



# COURSE DESCRIPTION

Common Core Geometry begins with a review of geometric definitions, theorems and characteristics. The curriculum develops the concepts of triangle congruence and similarity by considering the transformation of figures in the coordinate plane. The curriculum includes topics such as transformations, congruence, proofs, constructions, similarity, right triangles, trigonometry, area, volume, geometric modeling, coordinate geometry, circles and parabolas. Incorporated throughout the lessons are video tutorials and interactive presentations. Lessons are designed using a best practice model that includes scaffolding, vocabulary, prior knowledge, guided practice, independent practice, and written response opportunities for students to solve, analyze, and evaluate concepts.

# CHAPTERS

Jeametry

Ch.1 - Transformations, Congruence, Proof, and Constructions

- The Language of Geometry
- Transformations in the Coordinate Plane
- · Symmetry
- · Properties of Transformations
- · Composition of Transformations
- · Congruent Figures Defined in Terms of Rigid Motions
- · Congruent Parts of Congruent Triangles
- Triangle Congruence Criteria
- Constructions 1.1
- · Special Pairs of Angles
- · Angles Formed by Parallel Lines Cut by Transversal
- · Angles in a Triangle
- · Isosceles Triangles
- · The Triangle Inequality Theorem
- · Angle Side Relationships in Triangles
- · Properties of Parallelograms
- · Special Quadrilaterals
- · Making Conclusions and Developing Proofs
- · Proofs Based on Congruent Triangles
- Constructions 1.2
- · Line Segments in Triangles
- Constructions 1.3
- · Unit Assessment: Transformations, Congruence, Proof, and Constructions
- Ch.2 Similarity, Right Triangles and Trigonometry
- · Properties of Dilations
- · Similarity Transformations and Triangles
- Constructions 2.1
- · AA Similarity in Triangles



- · SSS~ and SAS~ Similarity
- · The Splitter Theorems
- · Similar Right Triangles
- Triangles: Congruence and Similarity
- The Special (Reference) Triangles
- Constructions 2.2
- · Define Trigonometric Ratios in Right Triangles
- Relating Sine and Cosine
- · Applications of Trigonometric Ratios and the Pythagorean Theorem
- · Unit Assessment: Similarity, Proof, and Trigonometry

Ch.3 - Geometric Measurement and Dimension

- · Apply Geometric Principles to Solve for Perimeter and Area
- · Apply Geometric Principles to the Area and Circumference of Circles
- · Areas of Regular Polygons
- · Identifying the Parts of Solid Figures
- · Cross Sections of Solids
- · Volume of Prisms & Cylinders
- · Volume of Pyramids, Cones, and Spheres
- · Cavalieri's Principle
- · Surface Area of Solids
- · Rotational Volume

Geometry

- · Describe Objects Geometrically and Apply Concepts of Density
- Solving Design Problems with Geometry
- · Unit Assessment: Geometric Measurement and Dimension

Ch.4 - Expressing Geometric Properties with Equations (Analytic Geometry)

- Connecting Algebra and Geometry Through Coordinates
- · Proving the Slope Criteria of Parallel and Perpendicular Lines
- · Perpendicular Bisectors
- · Proving Triangles in the Coordinate Plane
- · Constructions 4.1
- · Proving Quadrilaterals in the Coordinate Plane
- Constructions 4.2
- · Partitioning Line Segments into a Given Ratio
- · Area and Perimeter of Figures in the Coordinate Plane
- · Focus-Directrix Definition of a Parabola
- · Unit Assessment: Expressing Geometric Properties with Equations (Analytic Geometry)

#### Ch.5 - Circles

- . The Equation of a Circle in the Coordinate Plane
- · Completing the Square to Determine the Center and Radius of a Circle
- · Proving Points Lie on a Circle in the Coordinate Plane
- · Intersecting Chords, Secants, and Tangents
- · Chords in Circles
- · Line Segments in a Circle
- · Constructions 5.1
- · Characteristics of Angles in Inscribed Polygons
- · Tangent Lines in Circles
- · Constructions 5.2
- · Circles are Similar
- Constructions 5.3
- · Arc Length and Area of Sectors (in Radians)
- · Unit Project: Construct a 9-Point Circle
- · Unit Assessment: Circles



# Math for Daily Living



# COURSE DESCRIPTION

This curriculum covers mathematical concepts that adults must deal with every day in order to live a successful life. It covers topics ranging from balancing a checkbook to buying a vehicle. This course will help students learn how to deal with everyday problems and questions which arise in daily living. Students will be engaged with real life problem solving and acquire a vocabulary that will help them understand the language of daily life.

## CHAPTERS

- Ch.1 Making and Changing Your Budget
- Ch.2 Banking

Math for Daily Living

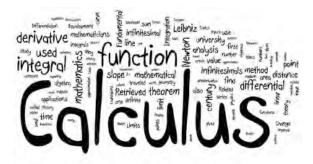
- Ch.3 Choosing and Buying Groceries
- Ch.4 Credit Card Math
- Ch.5 Your Salary
- Ch.6 Loans and Interest
- Ch.7 Finding a Place to Live
- Ch.8 Deciding What You Need & Getting the Best Buy
- Ch.9 Covering Your Expenses
- Ch.10 Buying a Vehicle
- Ch.11 Your Take Home Pay

# COURSE OBJECTIVES

- Use algebraic, numerical, graphical, or statistical methods to draw accurate conclusions and solve mathematical problems.
- Represent quantitative problems expressed in natural language in a suitable mathematical format.
- Effectively communicate quantitative analysis or solutions to mathe-matical problems in written or oral form.
- Evaluate solutions to problems for reasonableness using a variety of means, including informed estimation.



# **Pre-Calculus**



# COURSE DESCRIPTION

This course is designed to cover topics in Algebra ranging from polynomial, rational, and exponential functions to conic sections. Trigonometry concepts such as Law of Sines and Cosines will be introduced. Students will then begin analytic geometry and calculus concepts such as limits, derivatives, and integrals. This class is important for any student planning to take a college algebra or college pre-calculus class.

# CHAPTERS

Module 1: Functions

- 1.1: Functions and Function Notation
- 1.2 Domain and Range
- 1.3 Rates of Change and Behavior of Graphs
- 1.4 Composition of Functions
- 1.5 Transformation of Functions
- 1.6 Inverse Functions

### Module 2: Linear Function

- 2.1 Linear Functions
- 2.2 Graphs of Linear Functions
- 2.3 Modeling with Linear Functions
- 2.4 Fitting Linear Models to Data
- 2.5 Absolute Value Functions

### Module 3: Polynomial and Rational Functions

- 3.1 Power Functions & Polynomial Functions
- 3.2 Quadratic Functions
- 3.3 Graphs of Polynomial Functions
- 3.4 Rational Functions
- 3.5 Inverses and Radical Functions

#### Module 4: Exponential and Logarithmic Functions

- 4.1 Exponential Functions
- 4.2 Graphs of Exponential Functions
- 4.3 Logarithmic Functions
- 4.4 Logarithmic Properties
- 4.5 Graphs of Logarithmic Functions
- 4.6 Exponential and Logarithmic Models
- 4.7 Fitting Exponentials to Data

Module 5: Trigonometric Functions of Angles

- 5.1 Circles
- 5.2 Angles
- 5.3 Points on Circles using Sine and Cosine
- 5.4 The Other Trigonometric Functions
- 5.5 Right Triangle Trigonometry Module



Module 6: Periodic Functions

- 6.1 Sinusoidal Graphs
- 6.2 Graphs of the Other Trig Functions
- 6.3 Inverse Trig Functions
- 6.4 Solving Trig Equations
- 6.5 Modeling with Trigonometric Equations

Module 7: Trigonometric Equations and Identities

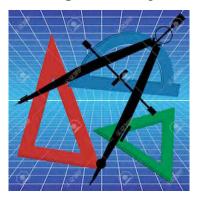
- 7.1 Solving Trigonometric Equations with Identities
- 7.2 Addition and Subtraction Identities
- 7.3 Double Angle Identities
- 7.4 Modeling Changing Amplitude and Midline

Module 8: Further Applications of Trigonometry

- 8.1 Non-right Triangles: Law of Sines and Cosines
- 8.2 Polar Coordinates
- 8.3 Polar Form of Complex Numbers
- 8.4 Vectors
- 8.5 Parametric Equations



# Trigonometry



## COURSE DESCRIPTION

What can you do with trig? Historically, it was developed for astronomy and geography, but scientists have been using it for centuries for other purposes, too. Besides other fields of mathematics, trig is used in physics, engineering, and chemistry. Within mathematics, trig is used in primarily in calculus (which is perhaps its greatest application), linear algebra, and statistics. Since these fields are used throughout the natural and social sciences, trig is a very useful subject to know.

### CHAPTERS

Irigonometry

Ch.1 - Foundations of Trigonometry

- Convert: Degrees to Radians
- The Six Trig Ratios
- Identifying Angles in the Standard Position
- An Introduction to Periodic Functions
- The Co-Function and Reciprocal of Trig Functions
- Find the Value of Reciprocal Trig Functions

# Ch.2 - The Unit Circle

- Circular Motion
- The Unit Circle Part I
- The Unit Circle Part II

### Ch.3 - Trigonometric Functions

- Extending Trigonometry to All Angles
- The Tangent Function
- Secant, Cosecant, and Cotangent

#### Ch.4 - Radians

- Find Value of Trig Expressions: Radians
- Angle Measure Conversions: Radians

Ch.5 - Graphs of Trigonometric Functions

- Analyzing the Graphs of Trigonometric Functions
- Graphs of Reciprocal Trig Functions

Ch.6 - Understanding Trigonometric Functions and Putting Them to Use

- Basic Trig Identities From Graphs
- Transformations of Trigonometric Functions
- Using Trig Functions to Model Physical Behavior
- Ch.7 Trigonometric Identities
  - The Pythagorean Identity
  - Solve Trigonometric Equations
  - Prove Trigonometric Identities
  - Sum & Difference Identities



# Music

# **Music Appreciation**



# COURSE DESCRIPTION

This curriculum will cover topics spanning music theory, instrument families, and the evolution of music throughout history. Objectives will guide students through each lesson, with the goal of understanding the "big picture" of music history and appreciating its various qualities. Learning activities include interactive presentations, research opportunities, videos, creative projects, and assessments.

# CHAPTERS

Ch.1 - Introduction Ch.2 - Music Theory Ch.3 - The Strings Family Ch.4 - The Wind Family Ch.5 - The Percussion Family Ch.6 - Musical Ensembles Ch.7 - Music History

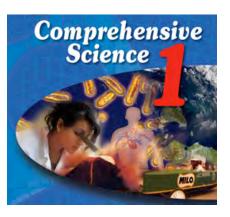
# COURSE OBJECTIVES

Demonstrate an understanding of the elements of music and how these elements relate to the compositions presented in class, applying the knowledge of musical styles to composer and composition identification. Apply the course information to future classical music concerts the students may attend, providing an outlet for expression, personal awareness, and aesthetic enlightenment (life-long learning).



# Science

# **Comprehensive Science I**



# COURSE DESCRIPTION

Comprehensive Science 1 is the first in a series of three consecutive science classes. This course provides an introduction to Science, Energy, Force, Weather, Climate, The Earth's Systems, and the Living World. Some topics are explored in depth while others are introduced to serve as building blocks for Comprehensive Science 2 and 3. During this course students will explore science through every day examples and experiences. Students will participate in activities and online laboratory experiences to apply what they have learned.

# **CHAPTERS**

Comprehensive Science 7

Ch.1 - Weathering, Erosion, Deposition, and Landforms

- Landforms
- Erosion: Changes in the Earths Surface
- Types of Weathering
- The Force of Moving Water
- Glaciers
- Wind and Wave Erosion
- · Weathering and Erosion Test

### Ch.2 - Earth System and Patterns

- Earth's Shape and Structure
- Layers of the Atmosphere
- Earth's Atmosphere
- Ozone Layer Writing
- Global Change in Atmosphere
- Global Warming Project

### Ch.3 - The Sun's Energy

- Heat Transfer
  - Heat Energy
  - · Energy from the Sun Test

Ch.4 - Weather and Climate

- Climate Introduction
- What Causes Climate?
- Factors that Influence Climate
- Wind
- Meteorology: How Do Clouds Form?

Ch.5 - Human Body Systems



- Human Body: Introduction
- Human Body: Nervous System
- Human Body: The Muscular and Skeletal System
- · Human Body: The Circulatory System
- Human Body: Digestion
- · Human Body: The Endocrine System
- Human Body: The Immune System
- Human Body: Reproductive System

### Ch.6 - Classifications

- Biological Change
- Minor Kingdoms

Ch.7 - Cell Theory, Structure, and Function

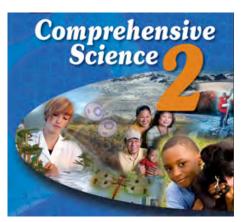
- Introduction to Cells
- Cell Organization
- The Cell and its Parts
- Cellular Respiration
- Plant Cells Vs. Animal Cells





Comprehensive Science 7

# Comprehensive Science II



## COURSE DESCRIPTION

Comprehensive Science 2 is the second course in the M/J Comprehensive Science Sequence. In this course students explore: The Foundations of Science, Energy, The Earth and it's features, The Earth's internal and external structures and how they change, The Earth's history, living things and how they change and interact, Genetics and Heredity, and The Organization of the living world. Some of these topics are introduced and serve as a foundation for Comprehensive Science 3 and others are discussed in detail. Students will learn through real world examples and virtually visit six different continents to see science in action all over the world. Students will participate in activities and online laboratory experiences to apply what they have learned.

# CHAPTERS

Jomprehensive Science 77

Ch.1 - Science Processes

- The Scientific Method
- Measurement and the Microscope

# Ch.2 - Earth's Structure/Plate Tectonics

- Earth's Shape and Structure
- Plate Tectonics: Intro
- Theory of Plate Tectonics
- Earths Moving Crust
- Mountain Building
- Continental Drift
- Mountain Building: Quiz

### Ch.3 - Rocks and Minerals

- Mineral Characteristics
- Rock Classification
- Igneous Rock
- Sedimentary Rocks: Virtual Field Trip
- Metamorphic Rocks
- The Rock Cycle
- Rocks and Minerals Review
- Rocks and Minerals Test

#### Ch.4 - Geologic History

- · Geologic History Introduction
- Finding Fossils
- Relative Age of Rock: Internet Activity
- Radiometric Dating
- Geologic Time Scale
- Geological History Review
- Geologic History Test



### Ch.5 - Weathering and Erosion

- Types and Rate of Weathering
- Erosion: Changes in the Earth's Surface
- Glaciers
- The Force of Moving Water/Glaciers
- Wind and Wave Erosion
- Weathering and Erosion Quiz

#### Ch.6 - Reproduction and Heredity

- Sexual vs. Asexual Reproduction
- The Female Reproductive System
- The Male Reproductive System
- Fertilization and Development
- Cell Reproduction: Mitosis Part I
- Cell Reproduction: Mitosis Part II

### Ch.7 - DNA

- Nucleic Acids: Vocabulary
- Nucleic Acids: DNA and RNA
- Nucleic Acids: Protein Synthesis Lab
- DNA Technology
- DNA Modeling Lab

### Ch.8 - Genetics

- Genetics: Vocabulary
- Genetics: Basic Genetics
- The Cell Cycle Part I
- The Cell Cycle Part II
- Genetics: Meiosis and Mitosis
- Genetics: Chromosome Study- Karyotype
- Genetics: Pedigree Studies
- Genetics: Pedigree Lab

#### Ch.9 - Natural Selection/ Evidence of Evolution

- Evolution: The Theory of Evolution
- Biological Change: Charles Darwin
- Evolution: Competition and Extinction

### Ch.10 - Ecology

- Ecology: Symbiosis
- · Populations and Relationships: Limiting Factors
- Ecosystem Balance
- Carrying Capacity
- Energy Flow
- Introduction to Biome
- Biomes: Data Analysis
- Population Ecology

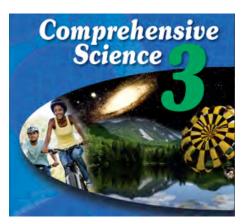
### Ch.11 - Electromagnetic Spectrum and Light

- Electromagnetic Spectrum: Prisms
- Properties of Waves
- · Light: Reflection, Refraction, and Absorption
- · Properties of Light
- Color and Light
- Sound and Light Waves
- Sound Waves and Mediums
- Nuclear Fission and Fusion



Comprehensive Science 77

# Comprehensive Science III



# COURSE DESCRIPTION

Comprehensive Science 3 is the last class of the M/J Comprehensive Series. The course introduces new information and reviews some basics of science to prepare students for high school science coursework. Topics covered in this course include: The Nature of Science, Earth and Space Science, Properties of Matter, Changes in Matter, Matter and Energy, and Energy flow in the living world. During this course students will learn through real world examples and applications. Students will participate in activities and online laboratory experiences to apply what they have learned.

## **CHAPTERS**

Comprehensive Science 177

Ch.1 - The Universe

- Characteristics of Stars
- Galaxies
- The Universe Test
- Ch.2 Solar System
  - The Sun
  - The Inner Planets
  - Outer Planets: Jupiter
  - Outer Planets: Saturn
  - Outer Planets: Uranus
  - Outer Planets: Neptune
  - Comets
  - Asteroids
  - Meteors
  - Space Exploration
  - Our Solar System: Review
  - Our Solar System: Test

### Ch.3 - Planetary Motion

- Earths Movement in Space
- Phases of the Moon
- Time Zones
- Eclipses
- Planetary Motion Test

### Ch.4 - The Scientific Model

- The Scientific Method
- Measurement and the Microscope
- The Scientific Method Test

Ch.5 - Properties of Matter



- Classification of Matter
- Density
- Physical Phases of Matter
- Physical and Chemical Changes
- The Law of Conservation of Mass

Ch.6 - Matter Cycles

- Photosynthesis
- Cellular Respiration
- The Law of Conservation of Energy and Mass
- The Carbon Cycle

### Ch.7 - Atomic Theory and The Periodic Table of Elements

- The Atomic Theory
- The Periodic Table of Elements



# **Biology I**



# COURSE DESCRIPTION

The students will study concepts relating to biology in our environment. The curriculum includes major topics such as biochemistry, cells, human body systems, genetics, and plants. Students will be given opportunities to analyze and evaluate these topics and how they relate to one another. Lessons are designed using a best practice model that includes scaffolding, vocabulary, guided practice, independent practice, and written response opportunities for students to synthesize and evaluate topics. New York Learning Standards and unit alignment were utilized in building this curriculum, as well as the Common Core Literacy Standards in the History/Social Studies, Science, and Technical Subjects.

# CHAPTERS

Biology 7

- Ch.1 Introduction and Scientific Method
- What is Biology?
- · The Scientific Method
- · Measurement and the Microscope
- The Compound Light Microscope Lab
- · Introduction and Scientific Method Test

Ch.2 - Biochemistry

- Organic Compounds
- · Enzymes
- The Life Functions
- · Biochemistry Test

Ch.3 - Cells

- · Introduction to Cells
- · Organelles
- · Transport Across the Cell Membrane
- · Cellular Organization
- · Cell Test

Ch.4 - Dynamic Equilibrium (Homeostasis)

- The Digestive System
- The Respiratory System
- The Excretory System
- The Circulatory System
- ' The Immune System
- The Nervous System
- The Endocrine System
- The Muscular and Skeletal Systems
- · Human Body Systems Test



- Ch.5 Reproduction and Development
- · Sexual vs. Asexual Reproduction
- The Female Reproductive System
- · The Male Reproductive System
- · Fertilization and Development
- · Cell Reproduction: Mitosis
- · Mitosis Lab
- · Cell Reproduction: Meiosis
- · Reproduction and Development Test

Ch.6 - Genetics

- · Mendelian Genetics
- · Chromosomes
- ' Genetic Disorders
- · DNA Structure and History
- · DNA Replication
- · Protein Synthesis and Mutations
- Biotechnology
- · DNA Fingerprinting
- · Cloning
- · Genetics Test
- · Research Project: Biotechnology

### Ch.7 - Evolution

- The Theory of Evolution
- · Darwin and Natural Selection
- · Competition and Extinction
- Evolution Test

### Ch.8 - Plants

- Introduction to Plants
- · Photosynthesis vs. Cellular Respiration
- · Plant Test

Biology 7

### Ch.9 - Ecology

- · Introduction to Ecology
- Nutrition & Energy Flow
- · Populations & Relationships
- · Biogeochemical Cycles
- · Stability & Succession
- · Ecology Test

### Ch.10 - Human Impacts

- · Human Effects on the Environment
- · Solutions to Human Impacts
- · Human Impacts Test



# **Chemistry I**



## COURSE DESCRIPTION

The students will study basic principles of chemistry with special emphasis on problem solving. The curriculum includes major topics such as energy, gas laws, atomic theory, and stoichiometry. Students will be given opportunities to analyze and evaluate these topics and how they relate to one another. Lessons are designed using a best practice model that includes scaffolding, vocabulary, guided practice, independent practice, and written response opportunities for students to synthesize and evaluate topics. New York Learning Standards and unit alignment were utilized in building this curriculum, as well as the Common Core Literacy Standards in the History/Social Studies, Science, and Technical Subjects.

# **CHAPTERS**

Ch.1 - Matter and Measurement

- · SI Units, Conversion Factors, and Temperature
- · Graphing

Chemistry

- · Calculations
- · Classification of Matter
- · Separation and Classification of Mixtures
- · Elements and Compounds
- · Physical Phases of Matter
- · Unit Assessment: Matter and Measurement

Ch.2 - Energy and Gas Laws

- · Calorimetry
- · Kinetic Molecular Theory
- · Boyle's Law
- ' Charles's Law
- · Concept of an Ideal Gas
- · Combined Gas Law
- · Unit Assessment: Energy and Gas Laws

#### Ch.3 - Atomic Theory

- · Atomic Models
- · Isotopes
- · Monatomic and Polyatomic Ions; Cations and Anions
- · Excited and Ground State Electrons
- · Lewis Electron Dot Structure
- · Unit Assessment: Atomic Theory

### Ch.4 - Nuclear Chemistry

- · Stability of an Atom
- · Radioactive Particles
- · Showing Conservation of Mass and Charge
- Transmutations
- · Half-Life Calculations
- · Uses and Dangers of Radioisotopes



- Ch.5 Periodic Table
- · Arrangements of the Elements
- · Chemical Properties of Groups and Periods
- · Types of Elements
- · Periodicity

Ch.6 - Bonding

- · Electronegativity and Bonding Between Atoms
- · Ionic Bonds
- · Covalent Bonding
- · Metallic Bonding
- · Molecular Geometry
- · Intermolecular Forces

### Ch.7 - Moles and Stoichiometry

- · Formula Mass and Percent Composition Calculations
- · Finding a Molecular Formula from Empirical
- · Finding Molecular Formula from Nomenclature
- Types of Chemical Reactions
- · Law of Conservation of Matter
- · The Mole
- · Mole-Mass Relationships
- Mole-Volume Relationships
- Stoichiometry

### Ch.8 - Kinetics and Equilibrium

- · Rates and Reaction
- · Potential Energy Diagram
- · Reversible and Irreversible Reactions and Equilibrium
- · Endothermic and Exothermic Reactions
- · Equilibrium

Chemistry 7

### Ch.9 - Solutions

- · Factors Affecting Solubility
- · Introduction to Solutions
- · Colligative Properties of Solutions
- · Calculations Involving the Concentration of a Solution

### Ch.10 - Acids, Bases, and Salts

- · Definitions of Acids and Bases
- · Electrolytes
- · Neutralization Reactions
- Indicators
- · Acid-Base Titration
- ' pH Scale

### Ch.11 - Oxidation and Reduction

- · Oxidation and Reduction
- · Assigning Oxidation States
- · Balancing Oxidation-Reduction Reactions
- · Spontaneous and Non-Spontaneous Reactions
- · Electrochemistry



# **Earth Science**



# COURSE DESCRIPTION

The students will study basic principles of earth science. The curriculum includes major topics such as energy, weather, climate, and plate tectonics. Students will be given opportunities to analyze and evaluate these topics and how they relate to one another. Diverse learning opportunities include videos, interactive presentations, and projects. New York Learning Standards and unit alignment were utilized in building this curriculum.

## CHAPTERS

Ch.1 - Rocks and Minerals Ch.2 - Geologic History Ch.3 - Parts of the Earth Ch.4 - Earthquakes Ch.5 - Plate Tectonics Ch.6 - Volcanoes Ch.7 - Mountain Building Ch.8 - Weathering and Erosion Ch.9 - Soil Ch.10 - Freshwater Ch.11 - Oceans Ch.12 - Atmosphere Ch.13 - Weather Ch.14 - Climate Ch.15 - Planetary Motion Ch.16 - Stars Ch.17 - Our Solar System

# COURSE OBJECTIVES

Students completing this course will:

- Articulate a fundamental knowledge about the surface and interior of the Earth
- Demonstrate an understanding of the Scientific Method as it relates to geosciences and the processes that relate to the form and function of the Earth
- Employ the language and nomenclature of earth sciences in discussions
- Demonstrate familiarity with the concept of plate tectonics
- · Discuss and analyze the environmental issues that face our region and the world at large





# **Environmental Science**



# COURSE DESCRIPTION

This course provides students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and man-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them.

## **CHAPTERS**

- Ch.1 Studying Earth
- Ch.2 Ecological Interactions
- Ch.3 Biomes
- Ch.4 Human Interaction in the Global Ecosystem
- Ch.5 Energy Resources
- Ch.6 Resources in the Biosphere
- Ch.7 Managing the Human Impact On Our World

## **COURSE OBJECTIVES**

- Students will demonstrate their ability to communicate effectively in written and oral form, demonstrating the ability to create an appropriate annotated bibliography and the ability to use effective presentation skills.
- Students will demonstrate interpretative skills including the ability to analyze data statistically, assess reliability, interpret results and draw reasonable conclusions.
- Students will develop standards of professional behavior that include rules of ethics and etiquette.



# Marine Biology



## COURSE DESCRIPTION

This course acts as an introduction to marine biology. Topics covered include the history of marine biology, marine biologists, the scientific method, ocean exploration, marine environments, marine life, and marine threats/responses. Diverse instructional methods are used throughout the course. These include interactive presentations, videos, notes, and websites. Assessment methods include creative projects, writing assignments, quizzes, reviews, and tests.

## **CHAPTERS**

- Ch.1 Introduction
- Ch.2 The Ocean
- Ch.3 Exploring the Oceans
- Ch.4 Marine Environments
- Ch.5 Simple Marine Life
- Ch.6 Marine Invertebrates
- Ch.7 Marine Fish
- Ch.8 Marine Reptiles
- Ch.9 Marine Birds
- Ch.10 Marine Mammals
- Ch.11 Marine Threats and Responses
- Ch.12 Supplemental

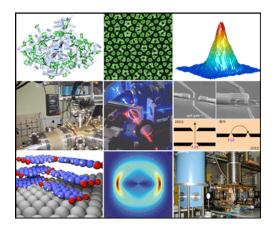
# COURSE OBJECTIVES

- (1) The ability to think logically, analytically, and independently;
- (2) The ability to communicate clearly and effectively, both orally and in writing;
- (3) The ability to learn on one's own and as part of a group; and
- (4) Depth of knowledge in a single field.





# **Physics I**



# **COURSE DESCRIPTION**

This course is an introduction to physics involving a study of motion, forces, conservation laws, heat, entropy, electricity, magnetism, waves, relativity and quantum theory. The cultural aspects of physics and the scientific method will be included. This course is for students who have had no previous physics, including high school physics.

# CHAPTERS

- Ch.1 Kinematics
- Ch.2 Free Fall and Acceleration of Gravity
- Ch.3 Newton's Laws
- Ch.4 Newton's Laws
- Ch.5 Vectors

Physics 7

- Ch.6 Projectile Motion
- Ch.7 Momentum/Conservation
- Ch.8 Work, Energy, and Power
- Ch.9 Circular Motion and Planetary Motion
- Ch.10 Planetary and Satellite Motion
- Ch.11 Waves
- Ch.12 Sound Properties and Perception
- Ch.13 Color and Vision
- Final Exam



# Weather and Astronomy



# COURSE DESCRIPTION

This course introduces basic meteorological concepts. Topics covered include air, the atmosphere, air pollution, acid rain, heat energy, wind, clouds, precipitation, air masses, storms, El Nino, climate, and global warming. Students will receive instruction through diverse methods including interactive presentations, videos, notes, and websites. Assessments include reviews and tests.

# CHAPTERS

- Ch.1 Weather
  - Heat Transfer
  - Weather Proverbs
  - Wind and Clouds
  - Precipitation
  - Air Masses and Fronts
  - Thunderstorms and Lightning
  - Tornadoes
  - Hurricanes
  - El Nino
  - Review

### Ch.2 - Climate

- Introduction
- The Cause of Climate
- Climate's Effect on Landscapes
- Factors that Influence Climate
- Climate Regions
- Global Warming
- Ozone Layer
- Review

### Ch.3 - Atmosphere

- The Air Around You
- Air Movement
- Earth's Atmosphere
- Air Pressure
- Layers of the Atmosphere
- Air Pollution
- Acid Rain
- Review

### Ch.4 - Planetary Motion

• Earth's Movement in Space



- Moon Phases
- Time Zones
- Eclipses

### Ch.5 - The Universe

- Characteristics of Stars
- Galaxies
- Tools of Modern Astronomy

### Ch.6 - Solar System

- The Sun
- Inner Planets
- Outer Planets
- Comets, Asteroids, and Meteors
- Space Travel
- Review





# Social Studies

6<sup>th</sup> Grade Social Studies



## COURSE DESCRIPTION

Sixth Grade Social Studies is a study of the patterns and interactions of countries in the Western Hemisphere. Students will determine information about people, places, and environment through the use and construction of geography tools. From an understanding of the physical and human characteristics of places, students will study the effects of the interaction between human and physical systems. With an emphasis on resource distribution and use, they will determine how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation, and conflict. This course builds a secondary-level foundation of global awareness, economic literacy, and civic literacy in order to address complex global issues. The 21st century skills of critical thinking, problem solving, communication, collaboration, and cross-cultural understanding will be emphasized throughout the course.

## CHAPTERS

5" Grade social studies

Ch.1 - Geography Fundamentals

- Map Skills
- Impacts on Geography
- Geography: World Regions

#### Ch.2 - Studying History

Primary and Secondary Sources

Ch.3 - Early Humans and the Agricultural Revolution

- Impact of Geography on Early Civilizations
- Early Human Migration
- Neolithic Revolution: Introduction and Impact of FarmingAssyrians, Chaldeans, and Ancient Persia Project

### Ch.4 - Mespotamia

- Ancient Mesopotamia
- Mapping on Mesopotamia Assignment
- Assyrians, Chaldeans, and Ancient Persia Project

#### Ch.5 - Ancient Egypt

- Early Egyptian Civilizations
- Ancient Egyptian Geography

#### Ch.6 - Ancient India

- Indus River Valley Civilization of Ancient India
- Hinduism
- Buddhism
- Mauryan Civilization
- Gupta Empire

#### Ch.7 - Ancient China



- Yellow River Valley Civilization
- Classical Civilization: Chinese Dynastic Cycles
- Legalism, Confucianism, and Taoism in Ancient China
- Han Dynasty of China

### Ch.8 - Ancient Greece

- Ancient Greece Vocabulary
- Greece: Athens and Sparta
- Ancient Greece City-State Comparison
- Contributions of Ancient Greece
- Peloponnesian Wars

### Ch.9 - Ancient Rome

- Roman Empire: Analyzing Maps
- Foundations of Roman Society
- Decline of the Roman Republic
- Pax Romana
- Preservation of Greek Culture
- The Birth of Christianity
- The Fall of the Roman Empire



OBRIDGE



5th Grade social studies

# 7<sup>th</sup> Grade Social Studies



# COURSE DESCRIPTION

This course explores what it means to be an informed, participating citizen in a democratic society. Students will learn about the elements of democracy in local, national, and global contexts, about political reactions to social change, and about political decision-making processes in Canada. They will explore their own and others' ideas about civics questions and learn how to think critically about public issues and react responsibly to them.

## CHAPTERS

"Grade social studies

Ch.1 - Geography

- Geography: World Regions
- · Physical and Cultural Settings of the Americas
- · Role of Geography on the Historical and Cultural Development of the US

### Ch.2 - Introducing Government in America

- Foundations of Government
- Political Beginnings of the United States
- Basic Concepts of a Democracy
- Declaration of Independence
- Articles of Confederation Questions
- Introducing Government in America Test

### Ch.3 - The Constitution

- Creating the Federal Government
- Six Basic Principles
- Ratifying the Constitution
- The Bill of Rights
- Checks and Balances
- Government and State
- · Review: Foundations of Govt and Constitution
- The Constitution Test

### Ch.4 - Legislative Branch

- Examination of the Congress
- Participating in the Legislative Process
- How a Bill Becomes a Law
- Expressed, Implied and Non-Legislative Powers of Congress

#### Ch.5 - Judicial Branch

- Introduction to the Judicial
- Judicial Branch Essay
- The Judicial Branch
- The Judicial Branch Test
- The Supreme Court
- Supreme Court Nominations



- Ch.6 Executive Branch
  - Executive Branch Webquest
  - The Presidency
  - The Presidency Test
  - Examination of the Presidency Questions
  - The Executive Branch

### Ch.7 - Political Parties

- Introduction to Political Parties
- Nominating Candidates for Office
- Interest Groups
- Public Opinion

Ch.8 - Civil Liberties and Social Policy

- Constitutional Protections
- Unlawful Arrest/Unlawful Search
- Fourth Amendment
- Gun Control

### Ch.9 - The Justice System

- The Trial Process
- Jury Selection
- Supreme Court Cases 1896 1974
- Criminal vs. Civil Law
- Rights of the Accused
- Criminal Justice Process
- Juvenile vs. Adult Justice System

### Ch.10 - Intro to Economics and the American Economy

Intro to Economics

"Grade social studies

- Understanding Economics
- How Economics Play a Role in our Lives
- Supply and Demand
- US Economic System
- Economics Review



# 8<sup>th</sup> Grade Social Studies



### COURSE DESCRIPTION

This class is an overview of U.S. History from pre-history until current times. The class is taught in two sections, with pre-history through 1850 and the U.S. Constitution in one section and 1850 through today in the second section. Students study primary and secondary historical documents, use problem solving skills, analyze data, make predictions and draw conclusions about historical events and people throughout time.

### CHAPTERS

Grade social studies

Ch.1 - Different Worlds Meet

- Mayan Culture
- Aztecs and Incas
- Native American Cultures
- People of North America
- Iroquois Creation Myth
- The Iroquois Confederacy and Democracy
- Different Worlds Meet Test

### Ch.2 - Exploring the Americas

- The European Renaissance
- Christopher Columbus
- Columbian Exchange
- Spanish Explorers
- The African Slave Trade
- French Explorers
- Exploration DBQ
- Exploring the Americas Test

### Ch.3 - Colonial America

- Political Beginnings of the United States
- French and Indian War
- "Join or Die" Cartoon
- The Legacy of Pocahontas
- English Explorers and Jamestown

### Ch.4 - The Colonies

- The New England Colonies
- The Middle Colonies
- The Southern Colonies
- The Thirteen Colonies Test
- Ch.5 Road to Independence
  - Crisis in the Colonies
  - Patriots and Loyalists
  - Declaration of Independence
  - Common Sense Assignment
  - DBQ Causes of American Revolution



- Ch.6 The American Revolution
  - The American Revolution
  - Treaty of Paris 1783

### Ch.7 - A More Perfect Union

- Continental Congresses/Articles of Confederation
- Six Basic Principles
- Shay's Rebellion
- Creating the Federal Government
- Federalists vs. Anti-Federalists

### Ch.8 - The New Republic

- Founding Fathers
- The United States Constitution
- Constitution Vocabulary
- Checks and Balances
- Popular Sovereignty
- George Washington
   George Washington F
- George Washington First Term
- George Washington Second Term

### Ch.9 - The Jefferson Era

- President Thomas Jefferson
- Supreme Court Cases 1803-1832
- War of 1812
- President James Madison

### Ch.10 - Growth and Expansion

- The Industrial Revolution
- Impact of the Industrial Revolution
- Child Workers in Factories
- Erie Canal

The Grade social studies

### Ch.11 - The Jackson Era

Andrew Jackson's Presidency



# American History



# DESCRIPTION

The students will study history and the impact that historical events have on the United States. The curriculum spans from colonial times through present day. Students will be given opportunities to analyze and evaluate the impact of these historical events. Diverse instructional methods are used throughout this course including interactive presentations, DBQs, unit assessments, and research projects. Lessons are designed using a best practice model that includes scaffolding, vocabulary, guided practice, independent practice, and written response opportunities for students to synthesize, evaluate, and debate topics. New York Learning Standards and unit alignment were utilized in building this curriculum, as well as the Common Core Literacy Standards in the History/Social Studies, Science, and Technical Subjects.

## CHAPTERS

- Ch.1 Geography of the United States
- Ch.2 The Constitution: Foundation of American Society
- Ch.3 The Constitution Tested: Nationalism and Sectionalism
- Ch.4 Industrialization of the United States: Reconstructed Nation
- Ch.5 Industrialization of the United States: Rise of the American Business, Industry, and Labor
- Ch.6 Industrialization of the United States: Adjusting Society to Industrialism
- Ch.7 Progressive Movement
- Ch.8 War and Prosperity (1917 1929)
- Ch.9 The Great Depression
- Ch.10 Peace in Peril (1933 1950)
- Ch.11 Peace with Problems (1945 1960)
- Ch.12 A World in Uncertain Times: 1950s to 1960s
- Ch.13 Limits of Power: Turmoil at Home and Abroad (1965 1972)
- Ch.14 Trend Toward Conservatism (1972 1985)
- Ch.15 Approaching the Next Century (1986- 1999)
- Ch.16 Supreme Court Case Project

# **COURSE OBJECTIVES**

Students will:

- master a broad understanding of historical knowledge and chronology
- understand its principal themes (including changes in political organization, long-term trends in diplomacy and economic policy, the interaction of various ideas, cultures, and social practices, and movements in American literary and cultural expression)
- · interpret multiple perspectives in historical scholarship
- work effectively with others to debate issues in American history



# **Economics**



## COURSE DESCRIPTION

The students will study the various aspects of economics with a specific focus on its application in the United States. The curriculum includes major topics such as types of economic systems, macroeconomics, and microeconomics. Students will be given opportunities to analyze and evaluate these topics and how they relate to one another. Diverse instructional methods are used throughout this course including interactive presentations, DBQs, and research projects. Lessons are designed using a best practice model that includes scaffolding, vocabulary, guided practice, independent practice, and written response opportunities for students to synthesize, evaluate, and debate topics. New York Learning Standards and unit alignment were utilized in building this curriculum, as well as the Common Core Literacy Standards in the History/Social Studies, Science, and Technical Subjects.

## CHAPTERS

- Ch.1 Making Choices
- Ch.2 Types of Economic Systems
- Ch.3 Microeconomics
- Ch.4 The Theory of Production
- Ch.5 Market Structures
- Ch.6 Economics Institutions and Issues
- Ch.7 Research Project 1
- Ch.8 Sources of Government Revenue
- Ch.9 Government Spending
- Ch.10 Financial Markets
- Ch.11 Macroeconomic Performance
- Ch.12 Economic Stability
- Ch.13 Money, Banking, and the Federal Reserve
- Ch.14 Economic Stabilization Policies
- Ch.15 Research Project 2

# COURSE OBJECTIVES

### Students will:

- 1. evaluate the impact of public opinion in influencing and shaping economic policies.
- 2. examine the influence of social and political conditions upon economics.

3. examine the roles major institutions such as business, labor, banking, and government play in the competitive market structure.

- 4. analyze economic systems, business organizations, and economic institutions.
- 5. will recognize that we now live in and compete in global society.



# **US Government**



# COURSE DESCRIPTION

The students will study the various aspect of government with a specific focus on its application in the United States. The curriculum includes analysis of the levels of government, as well as historical and modern applications. Students will be given opportunities to analyze and evaluate these topics and how they relate to one another. Diverse instructional methods are used throughout this course including interactive presentations, DBQs, and research projects. Lessons are designed using a best practice model that includes scaffolding, vocabulary, guided practice, independent practice, and written response opportunities for students to synthesize, evaluate, and debate topics. New York Learning Standards and unit alignment were utilized in building this curriculum, as well as the Common Core Literacy Standards in the History/Social Studies, Science, and Technical Subjects.

### CHAPTERS

- Ch.1 Purposes and Principles of Government, Politics, and Law
- Ch.2 Citizenship in Comparative Perspective
- Ch.3 Citizenship, Participation, and the Electoral Process
- Ch.4 Legal Obligations of Citizenship
- Ch.5 Public Policy and Political Participation
- Ch.6 Legal Rights and Responsibilities
- Ch.7 Modern Events
- Ch.8 Research Project
- Ch.9 Summarizing Project

## **COURSE OBJECTIVES**

(1) To have the students learn about American Government;

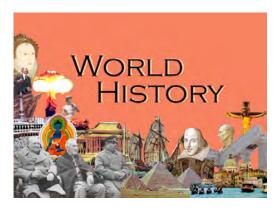
(2) To have the students acquire all the skills listed in the "Philosophy" section above;

(3) To have students demonstrate their knowledge and skills throughout their High School experience when Political issues and stance can be understood and discussed intelligently.





## World History



## COURSE DESCRIPTION

The students will study history and the impact that historical events have on the world. The curriculum spans ancient civilizations through the 1700s (chapter 1-5) and 1700sthrough modern day (chapter 6-10). Students will be given opportunities to analyze and evaluate the impact of these historical events. Diverse instructional methods are used throughout this course including interactive presentations, DBQs, unit assessments, and research projects. Lessons are designed using a best practice model that includes scaffolding, vocabulary, guided practice, independent practice, and written response opportunities for students to synthesize, evaluate, and debate topics. New York Learning Standards and unit alignment were utilized in building this curriculum, as well as the Common Core Literacy Standards in the History/Social Studies, Science, and Technical Subjects

## CHAPTERS

- Ch.1 Introduction to Global Studies A Introduction to Global History and Ancient Civilizations
- Ch.2 The Middle Ages
- Ch.3 The Byzantine Empire, Russia and Eastern Europe
- Ch.4 Expansion of Islam
- Ch.5 African Kingdoms and Trade-States and Ancient Mesoamerica
- Ch.6 The Renaissance and Reformation
- Ch.7 Exploration and Absolutism
- Ch.8 The Enlightenment, Scientific Revolution and American Revolution
- Ch.9 The French Revolution and Napoleon
- Ch.10 The Industrial and Economic Revolutions
- Ch.11 Revolutions and Nationalism
- Ch.12 Imperialism and Global Patterns
- Ch.13 World War I and the Russian Revolution
- Ch.14 Between the Wars
- Ch.15 World War II
- Ch.16 The Cold War
- Ch.17 Independence Movements
- Ch.18 20th Century Trends

## COURSE OBJECTIVES

- Master a broad body of historical knowledge related to World History.
- Demonstrate a multi-faceted understanding of historical knowledge.
- Identify different themes found throughout human activity and history.
- Work effectively with others create projects and solve problems.



# **Social Sciences**

# **Criminal Justice**



## COURSE DESCRIPTION

This curriculum introduces the fundamentals of the ever-expanding career of criminal justice. By examining the laws, trial processes, types of crime, and types of counsel, as well as an overview of the legislative process and the courts, the student will gain a deeper understanding of the criminal justice system.

## CHAPTERS

- Ch.1 Introduction to Law and History of Law
- Ch.2 United States Constitution
- Ch.3 Legislative Process and the Courts
- Ch.4 The Trial Process
- Ch.5 Crime
- Ch.6 Legal Counsel and the Criminal Justice Process
- Ch.7 Review and Final

## COURSE OBJECTIVES

- 1. To acquire an informed understanding of the basic components of justice processes
- 2. To recognize the major sources of crime data, and their uses and limitations
- 3. To examine the historical evolution of the role of policing in a modern society
- 4. To examine criminal court systems and adversarial concepts
- 5. To examine correctional systems and the purposes of punishment
- 6. To appreciate the basic differences between juvenile and adult systems
- 7. To appreciate emerging and international forms of justice



Iriminal Justice

## **Forensics**



## **COURSE DESCRIPTION**

This course will help students to understand and appreciate the world of a crime scene investigator. This course contains real-life scenarios that show students the "Real CSI". Diverse learning activities are incorporated throughout the course. These include videos, interactive presentations, and labs.

## **CHAPTERS**

- Ch.1 The Crime Scene
- Ch.2 Forensic Serology
- Ch.3 DNA

Forensics

- Ch.4 Forensic Anthropology
- Ch.5 Famous Case Studies
- Ch.6 Forensic Toxicology
- Ch.7 Physical Evidence and Properties
- Ch.8 Legal System and Forensics
- Ch.9 Hairs, Fibers and Paint
- Ch.10 Prints
- Ch.11 Firearms and Toolmarks
- Ch.12 Document and Voice Examination
- Ch.13 Forensic Psychology

## **COURSE OBJECTIVES**

The purpose of this course is to give students an overview of the field of forensic science, including areas of trace evidence, DNA, firearms, drug analysis, etc. For students considering a career in forensic science, this course will provide useful information to help the student determine which particular area is of interest to him or her.



CADEMY

## **Personal Finance**



## COURSE DESCRIPTION

This course provides students valuable lessons about how to manage their money in real life situations. It covers topics such as banking, credit card math, budgeting, loans and interest, etc. This course will provide students with insight into making good decisions regarding future investments and decision-making regarding finances.

## CHAPTERS

- Ch.1 Your Salary
- Ch.2 Your Take Home Pay
- Ch.3 Banking
- Ch.4 Making and Changing Your Budget
- Ch.5 Credit Card Math
- Ch.6 Loans and Interest

## COURSE OBJECTIVES

- (1). Students will increase their understanding of personal finance concepts.
- (2). Students will develop critical thinking skills with respect to financial planning concepts.
- (3). Students will appreciate the awesome power of compound interest as both a friend and an enemy.
- (4). Students will apply the knowledge gained to their personal financial situation.
- (5). Students will become financially responsible adults who save regularly and use credit wisely.



# Psychology



## COURSE DESCRIPTION

This curriculum provides a general introduction to psychology covering topics such as the history of psychology, human development, influences on human behavior, methods of psychology, and abnormal psychology. This course will provide the student with knowledge and vocabulary central to the understanding of psychology as a social science. Upon completion of this course, students will have a better understanding of what aspects influence behavior and the dynamics of psychological thought.

## CHAPTERS

- Ch.1 Intro and History of Psychology
- Ch.2 Methods of Psychology
- Ch.3 Biology of Behavior
- Ch.4 Sensation and Perception & Learning
- Ch.5 Consciousness
- Ch.6 Memory
- Ch.7 Development
- Ch.8 Motivation and Emotion
- Ch.9 Theories of Personality
- Ch.10 Methods of Testing & Intelligence
- Ch.11 Stress and Health
- Ch.12 Abnormal Psychology

## **COURSE OBJECTIVES**

1. Students can identify how we become aware of ourselves, how we learn to interact with others, and how we influence others and how they influence us.

2. Students can identify how psychologists study human behavior and how this knowledge can be used to explain, predict, and influence behavior.

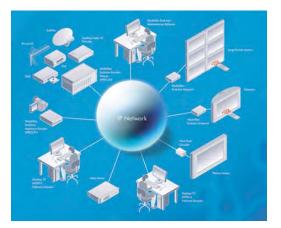
3. Students identify and critically evaluate psychological research methods.

4. Students assess the significance and importance of research reports.



# **STEM Computer Programming/Computer Science**

# **Intro to Computers**



## COURSE DESCRIPTION

Introduction to Computer Applications is designed to familiarize students with computers and their applications. It will also emphasize the use of computers and technology throughout their middle school, high school, college, and future careers. Students will learn fundamental concepts of computer hardware and software and become familiar with a variety of computer applications, including word processing, spreadsheets, databases, and multimedia presentations. Students will also investigate Internet-based applications, working with email and learning how to browse the web.

## CHAPTERS

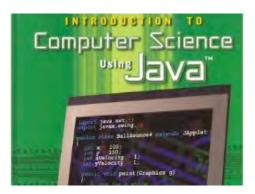
Ch.1 - Computer Basics Ch.2 - Applications Ch.3 - Input Ch.4 - Processing Ch.5 - Output Ch.6 - Storage Ch.7 - Computer to Computer Ch.8 - System Software Ch.9 - Programming Ch.10 - What You See Ch.11 - Hands On Ch.12 - On Your Own

## **COURSE OBJECTIVES**

As result of this class students should know that computers are being used in huge numbers by senior citizens and other non-business users. They should be reassured that anyone can learn computers. They should come away from this first course with the understanding of how to use the mouse and keyboard. That will reinforce the skills they are learning that will allow them to surf the Net.



# Introduction to Computer Science through Java



## COURSE DESCRIPTION

Introduction to Computer Science through Java is an introduction to computer science and programming intended for people with little or no experience. We start with the most basic concepts and are careful to define all terms when they are first used. The book presents each new idea in a logical progression. Larger topics, like recursion and object- oriented programming, are divided into smaller examples and introduced over the course of several chapters.

This book is intentionally concise. Each chapter is 12–14 pages and covers the material for one week of a college course. It is not meant to be a comprehensive presentation of Java, but rather, an initial exposure to programming constructs and techniques. We begin with small problems and basic algorithms and work up to object-oriented design. In the vocabulary of computer science pedagogy, this book uses the "objects late" approach.

## CHAPTERS

- Ch.1 The Way of the Program
- Ch.2 Variables and Operators
- Ch.3 Input and Output
- Ch.4 Void Methods
- Ch.5 Conditionals and Logic
- Ch.6 Value Methods
- Ch.7 Loops
- Ch.8 Arrays
- Ch.9 Strings and Things

## COURSE OBJECTIVES

The goal of this course is to teach you to think like a computer scientist. I like the way computer scientists think because they combine some of the best features of Mathematics, Engineering, and Natural Science. Like mathematicians, computer scientists use formal languages to denote ideas (specifically computations). Like engineers, they design things, assembling components into systems and evaluating trade offs among alternatives. Like scientists, they observe the behavior of complex systems, form hypotheses, and test predictions.

The single most important skill for a computer scientist is problem-solving. By that I mean the ability to formulate problems, think creatively about solutions, and express a solution clearly and accurately. As it turns out, the process of learning to program is an excellent opportunity to practice problem-solving skills. That's why this chapter is called "The way of the program."

On one level, you will be learning to program, which is a useful skill by itself. On another level you will use programming as a means to an end. As we go along, that end will become clearer.



# Intro to Game Industry



## COURSE DESCRIPTION

Video games are an increasingly important medium in terms of national use, cultural impact and profitability. With over \$30 billion in worldwide sales last year (more than motion pictures) and a rapidly growing base of mainstream users, games are a medium that needs to be examined. However, this industry, its history and the cultural practices it engenders have been seriously neglected in comparison to television and other media.

The course has been designed as a broad introduction to the medium and history of video games and the industry. It draws from a wide variety of disciplines to examine video games as aesthetic products, cultural products, economic outputs, as a policy issue, as possible sources of effects and sites of community. The course will consist of both readings, exercises, and projects. We begin with the foundations in the first few CHAPTERS leading towards creating our first video game in later CHAPTERS and a final project at the end of the chapter.

## CHAPTERS

Intro to Game Industry

- Ch.1 Introduction to Games
- Ch.2 Evolution of Games
- Ch.3 Game Genres: Action & Strategy
- Ch.4 Game Genres: Role Playing & Sports
- Ch.5 Game Genres: Vehicle & Adventure
- Ch.6 Game Genres: Puzzle Games
- Ch.7 Game Platforms
- Ch.8 Production Cycle
- Ch.9 Game Creation



# **College Credit**

# **English Composition**

Obridge Academy/St. Joseph's College English Composition: Style, Argument, and Research Online: (3 credit hours) Prerequisite: Students in 11th or 12th grade, or beyond.



## **Required Texts and Materials**

- "They Say/I Say." The Moves That Matter in Academic Writing, with Readings; Gerald Graff, Cathy Birkenstein, Russel Durst.
- Writing Spaces: Readings on Writing, volume 2. Series Editors: Charles Lowe and Pavel Zemliansky, 2011 by Parlor Press. licensed under the Creative Commons.
- Additional Readings (available online)
- Access to the Internet: All course materials will be available on the course Blackboard page. To
  access the page, go to https://obridge.blackboard.com/webapps/login/. Log in with your
  assigned ID# and select the class from the list. If you do not have reliable Internet access at
  home, plan to spend a minimum of seven hours per week at a computer lab, or in a library
  with computer access.

## **Course Description**

English Composition focuses on persuasion and argument that is research supported. This includes the process of locating and evaluating sources, documenting, and integrating source material into your text. In this course you will use argument to both inquire and persuade. Both argument and research are presented in the context of critical reading and writing.

## **Essential Objectives**

The successful student will be able to:

- Consistently apply an appropriate writing process that includes planning, drafting, revising and editing.
- Demonstrate in written work an awareness of the relationship among writer, subject, audience, and purpose.
- Demonstrate writing proficiency with a range of rhetorical approaches to include narration, exposition, argument, and critical analysis and recognize the stylistic and structural strategies in the writing of others.
- Focus written work around an explicit or an implied central thesis a position statement or
  proposition advanced by the writer that is arguable and supportable and develop the thesis
  systematically, using specific details and supporting evidence.
- Compose written work that demonstrates effective use of sentence structure, paragraphing, grammar, syntax, punctuation, and spelling.
- Collect, organize, and use a variety of traditional and electronic resources, critically evaluating information.



- Demonstrate proficiency in research writing skills by completing one or more papers that:
- o Develop and support an arguable thesis in written work;
- o Collect, organize, evaluate and use a variety of traditional and electronic resources;
- Incorporate relevant information and sources into written work; and
- o Appropriately acknowledge and document sources, using standard MLA style.

#### **Course Policies**

Attendance and Participation

- Online learning can be deceptive. Because class does not meet in a physical location, many feel that online courses are less serious. This is not true. Plan to spend at least two hours of outside work for every hour online
- Participation counts for 20% of the final grade. You should be prepared to actively participate in discussions about the assigned reading and make a substantial contribution to group assignments, and peer-review activities.

#### **Online Conduct**

- Be respectful of everyone in the class
- Demonstrate proper 'netiquette;' this includes refraining from negative personal comments and threats of any kind.

#### Grading

English Composition

- Formal essays: Essay 1, 10%; Essay 2, 25%; Essay 3, 25%.
- Participation: Discussion and Group Work: 20%
- Assignments: Research, quizzes, homework: 20%
- Late Work: All assignments must be handed in on time. Late essays will be assessed a full ten
  points for each day after the date on which they are due and will not be accepted after three
  days. Blackboard assignments are due at 11:59 pm on the assigned day. Late assignments will
  not be accepted. This is also true of Discussion Board posts.
- Plagiarism: All submitted work must be your own and must be written exclusively for this course. The use of sources (ideas, quotations, paraphrases) must be properly attributed and cited. If you are found guilty of plagiarism on an assignment, you will receive a zero for that assignment and may flunk the course and/or be referred to a judicial advisor.
- Revision Process: Good writers almost always revise their work; the process of revision is an
  important part of learning to write. You will be required to prepare a draft as well as a final
  version of your essay. Preparing a draft ahead of time will give you a chance to get feedback
  on your work and make necessary revisions. While the draft does not receive a letter grade,
  the preparation of a substantial working draft and participation in peer-review count for 10%
  of the final grade of each essay.
- In addition, preparatory work, peer-review, and revision also count toward your homework assignments and informal writing grades. Formal essays and final drafts must be prepared on a word processor and printed. Refer to the MLA Style Sheet for information on formatting your essay and citing sources.

#### Homework Assignments and Online Writing:

- Good writing requires practice, and you will have frequent homework assignments and online (Discussion Board) writing exercises. All assignments will be graded using a rubric. It is therefore of utmost importance to understand all the rubric categories.
- Teaching Method: Students will be asked to work with others frequently and should be prepared to contribute to group activities. Other modes of teaching can include short lectures (through video), discussion board posts, and Sustained Silent Literacy (SSL): a Constructivist Approach.
- Office Hours and Email: Your instructor is always available through Skype and email. Your
  instructor will always respond to relevant and respectful e-mail messages in a timely manner.
  Please follow accepted "Nettiquete" guidelines, when sending e-mail, and use the standard
  format of a respectful e-mail.
- The exact details of each class, including specific assignments and readings, will be provided before the first class session.



# Mandarin Chinese I

Obridge Academy/St. Joseph's College Online: (3 credit hours) Instructor: Xing (Harry) Yang, M.A. E-mail: <u>harry.yang@obridgeacademy.com</u>

# Mandarin Chinese



#### **Course Description**

The World of Mandarin Chinese is designed for students with no prior knowledge of Chinese. All the skills necessary to speak and understand the Chinese language and contemporary culture will be taught in an online environment. In addition to learning to speak, students will learn to read and writer simplified Chinese characters.

This course was designed with the young, tech savvy learner in mind. The dialogs encompass six 'Acts' and are based on the lives of four teenagers from Chongqing, China. Each Act consists of three Scenes that focus on the linguistic and cultural elements necessary to reach the Novice Mid level.

#### Instructor

Xing (Harry) Yang, M.A. Long Island University, B.A., Chinese Language and Literature, Teachers' University of Technology, Chang Zhou, Jiangsu.

#### Credit and Time

Students will receive three college credits, or one high school credit. The college credit course will last for one semester (15 weeks); the high school course for 36 weeks.

#### **Aims and Purpose**

Linguistic Knowledge

- Grasp Chinese tones, phonetics and rhythm
- Recognize 500 characters and be able to reproduce character stroke order
- Correctly reproduce Chinese word order, basic sentence patterns
- Master distinct ways of social interaction (body language, communicative signals)
- Explain fundamental linguistic differences between Chinese and English languages
- Explain differences in likes and dislikes in contemporary China, including music, television and social media.

#### Linguistic Skills

- Can understand basic and rehearsed words and expressions, simple sentences and expressions
- Can repeat and recite learned expressions connected to concrete daily needs and wants
- · Can recognize Pinyin and 500 (simplified) characters and function as an emerging reader
- Can rewrite characters and compose basic expressions based on the dialogs in Pinyin



#### **Cultural Awareness**

Students will

- Experience contemporary Chinese culture and understand the connection between language and culture
- · Demonstrate basic social and computer etiquette relative to Chinese culture
- Understand the commonalities and differences in cultural experience between Chinese and American youth
- Explore the similarities and differences between Chinese and American Internet and social media practices.

Learning Outcomes

- At the end of *The World of Mandarin Chinese* students are expected to demonstrate:
- · Confidence in speaking Chinese, coupled with reduced anxiety of making an error
- An understanding of an ancient culture that is different from their own culture
- The ability to speak about personal interests, national origin, countries, food, music, and a host of other basic topics.

## **Teaching and Learning Approach**

We encourage:

- Learning-autonomy and cooperation throughout the entire course. Students are assigned to 'study groups,' within which they will communicate on a regular basis; each group has a Chinese speaking 'language buddy' who will interact with the group members and assist them in speaking and reading
- The use of digital technology to enhance learning, including online recording devices, smart phones, video software, social web sites and other media
- Project Based Learning (PBL) as imagined by John Dewey, where students develop projects based on their interests; the projects are done at the appropriate proficiency level and can include levels of Bloom's Taxonomy
- Active student participation in all levels and aspects of the language learning experience.

## **Resources and Important Links**

Obridge Academy Chinese Facebook Page:

- Confucius Institute Online: http://www.chinesecio.com; http://www.chinesecio.com/cms/zhhans/learning
- Great Wall Chinese: http://www.greatwallchinese.cn/portal.do
- Chinese Interactive Exercises: http://www.quia.com/dir/chinese/
- Culture Website: http://www.cultural-china.com
- Great Wall: http://video.nationalgeographic.com/video/exploreorg/china-great-wall-eorg
- Travelling in China: http://www.nationalgeographicexpeditions.com/expeditions/chinatour/detail.
- Additional reading assignments on Chinese culture, history and social institutions assigned regularly throughout the course.

#### Assessment

- Tests (at the end of each Act): 25%
- Quizzes (in each Scene): 15%
- Assignments (recordings, comprehension activities, writing): 25%
- Participation, including Discussion Board Topics: 25%,
- Projects: 10%,

Act and Scene Topics

- 第一幕 Act One: The Inside World: introductions, family, numbers
- 第二幕 Act Two: Finding your Way in the World: directions, destinations, numbers, schedules
- 第三幕 Act Three: The World of Food: types of food, countries, ordering and paying for food
- 第四幕 Act Four: The Digital World: video, texting, social websites
- 第五幕 Act Five: The Outside World: nature, games, and sports
- 第六幕 Act Six: The World of Learning: school, teaching, tests, future careers.

