Salem Central School District

Grades 7-12 Course Catalog
Salem Central School District

Vision Statement:
To be the exemplary model of a rural school district where parents and guardians aspire to have their children experience its educational program, students may obtain lasting and fulfilling careers with a sense of accomplishment, and graduates always remember their experience as a vital component of their success in life.

Mission Statement:
Maintain a supportive and caring learning environment for the students of Salem, Rupert, and the surrounding area that creates opportunities for students both before and after graduation, promotes student success through a focused, intentional academic program, and engenders a sense of service to both school and community.

7-12 Principal
Jared W. Davis
(518)854-7600

7-12 Guidance Counselor
Don Zarzycki
(518)854-7855
Agricultural Science

- Grade level – 9 and 10
- Elective
- No Prerequisites
- Full Year Course
- 1 credit
- This course includes:
  - Working in the greenhouse
  - Driving a tractor
  - Making ice cream
  - Completing a resume and participating in a mock job interview
  - Gardening
  - Learning about your food from the farm to the table

Washington County is a diverse agricultural community and students need to know there are opportunities here for them to participate in the agricultural industry.

Ag Science is designed to expose students to interesting, exciting and profitable fields of the agriculture industry. Students will gain experience with the National FFA Organization and its leadership opportunities and prepare a career portfolio.

The final exam for this course will be given in June before the Regents exams.

This course is offered every other year.
Animal Science

- Grade level – 10, 11 and 12
- Elective (can count as the third non-lab science)
- Prerequisites – Biology or Ag Science
- Full Year
- 1 credit

This course includes:
- Debating current issues in the animal industry
- Study of the reproductive and digestive systems of livestock and companion animals
- Dissecting animals and animal systems
- Listening to guest speakers

This is an applied biology course that explores the large and small animal industry through the use of animals in everyday life. Topics to be covered include animal industry vocabulary, nutrition, reproduction, biotechnology and careers in the animal industry.

The final exam for this course will be given in June, before the Regents exams

This course is offered every other year.
Plant Science

- Grade level – 11 and 12
- Elective
- Prerequisite – none
- Half year (first semester before Landscaping)
- ½ credit
- This course includes:
  - Studying plant growth and reproduction
  - Designing and implementing an experiment using plants
  - Building and utilizing a hydroponics system

Students will explore the world of plants to understand the basic biology and also apply their knowledge to growing Wisconsin Fast Plants and hydroponic grow systems.

The final exam for this course will be the hydroponics system lab report.

This course is offered every other year.

Landscape Design

- Grade level – 11 and 12
- Elective
- Prerequisite - none
- Half year (second semester after Plant Science)
- ½ credit
- This course includes:
  - Designing and implementing a landscaping project
  - Maintaining previous landscaping projects
  - Growing plants in the greenhouse
  - Designing, planting, and maintaining the Courthouse Community Garden

Students will use landscape design tools to prepare a design plan and make decisions about the plants and flowers for the design. Students will maintain existing projects within our community.

The final exam for this course is the completed landscape design plan.

This course is offered every other year.
**Vet Science**

- Grade level – 11 and 12
- Elective (can count as third non-lab science)
- Prerequisites – Biology and Earth Science
- Full year
- 1 credit
- This course includes:
  - Learning the language of veterinary medicine
  - Studying anatomy and physiology of different species
  - Learning to complete a physical exam
  - Exploring career options in veterinary medicine

Vet Science is based on a curriculum written at Cornell University. Students will be introduced to veterinary terminology, anatomy and physiology of multiple species and practices and procedures in a veterinary hospital. Students interested in pursuing a career in human medicine would also benefit from this course.

The final exam for this course is in June before Regents exams.

This course is offered on the Distance Learning network.

This course is offered every year.
Fish and Wildlife

Grade level – 11 and 12
Elective
Prerequisites – Biology and Earth Science
Full year
1 credit
This course includes:
- Raising trout in the classroom
- Testing the water of White Creek
- Bird watching
- Studying mammals
- Identifying and discussing issues facing wildlife in the United States

Fish and wildlife begins with a water quality study of White Creek and raising trout in the classroom. The second semester will focus on taxonomy, habitat requirements and current issues in the wildlife industry using mammals, birds, reptiles and amphibians.

The final exam for this course is given in June before the Regents exams

This course is offered every other year.
Course Title: Art 7

Number of Credits: N/A

Grade Level(s): 7th

Course Description:

- Jr. high Exploratory requirement
- 20 weeks – every day
- This is a hands-on class for all students to expand their art skills and techniques, art appreciation and art knowledge. Topics include, but are not limited to:
  - Shading and value
  - One-point perspective
  - Landscape
  - Abstract designs
  - Printmaking
  - Tessellations
  - Artists’ Monthlies
  - Bruegel
  - Kandinsky
  - Durer
  - M.C. Escher
  - Romero Britto
  - Tempera Painting
  - Cut Paper
- Students will also be responsible for a weekly sketchbook drawing to practice observation and drawing skills.
- Comprehensive Final Exam – written and drawing
Course Title: Studio in Art

Number of Credits: 1 Credit

Grade Level(s): 9-12

Course Description:

- Grades 9, 10, 11, 12 (preference for Grade 9 in order to take other art courses.)
- Meets requirement for 1 unit of study in art or music for graduation
- Prerequisites – passing grade of 65 or higher in Art 7
- Full year course – every day – every year
- 1 unit of credit
- This is a comprehensive course designed for all students that incorporates learning basic art content, knowledge and vocabulary; experimenting with a variety of materials and techniques used by artists; studying art styles, art history, and culture; creating a portfolio of work for further study; and a basic knowledge of art criticism and self-awareness. Much of the focus will be on knowing and using Elements of Art and Principles of Design to create artwork. The basic knowledge learned in this class will carry over to all other art electives that students may choose later in their educational career.
- There is a weekly sketchbook assignment for this course where students are expected to hone both their observation skills, as well as drawing techniques.
- Midterm exam (local) – written and drawing, Final Portfolio, Final Exam (local) – written and drawing
Course Title: Studio in Drawing & Painting I

Number of Credits: 1 Credit

Grade Level(s): 10-12

Course Description:

- Grades 10, 11, 12
- Elective
- Prerequisites – Studio in Art
- Full year course – every day – every other year
- 1 unit of credit
- This course is designed for students who enjoy drawing and/or painting, or who want to learn more in these areas. It is also a class students should take if they think they might like to continue on in a career in the arts. It is a mostly hands-on course where students will practice skills; explore new techniques and materials; study other artists; study art history and culture; and use critiquing in both written and oral formats to better understand their work as well as gain an appreciation for the work of others.
- There is a weekly sketchbook assignment where students will practice observation skills and build both speed and precision in their drawing.
- Final Project, Final Portfolio
- Students will be expected to enter work in art shows and the school literary magazine.
Course Title: Advanced Studio in Drawing & Painting II

Number of Credits: 1 Credit

Grade Level(s): 11-12

Course Description:

- Grades 11, 12
- Elective
- Prerequisites – Studio in Drawing & Painting I
- Full year course – every day – every other year
- 1 unit of credit
- This course is an advanced continuation of Studio in Drawing and Painting I. Students will continue to hone art skills and build working knowledge of creating art. Students will be asked to be more expressive and creative with their work at this level. Most of the year’s work will be focused around monthly themes rather than specifically tailored projects. Students will be required to research ideas and do presentations of not only their work, but the process they used in creating the work including artistic influences, materials, and techniques explored.
- There is a weekly sketchbook assignment where students will practice observation skills and build both speed and precision in their drawing.
- Final Portfolio
- Students will be expected to enter work in art shows and the school literary magazine.
Course Title: Studio in Computer Art (Graphic Design)

Number of Credits: 1 Credit

Grade Level(s): 10-12

Course Description:

- Grades 10, 11, 12
- Elective
- Prerequisites – Studio in Art
- Full year course – every day – every other year
- 1 unit of credit
- This is a design course using the computer as the main focus for creating artwork. Throughout the year students will be exposed to many different ways that the computer can be used to make art. These may include: design, cartooning, drawing using Adobe Illustrator, computer animation using Adobe Flash, digital photography using Adobe Photoshop, typography, graphic design (logos, letterheads, advertising, and product design) and web page design.
- Final Portfolio
- Students will be expected to enter work in art shows and the school literary magazine.
Course Title: Studio in Digital Photography

Number of Credits: 1 Credit

Grade Level(s): 10-12

Course Description:

- Grades 10, 11, 12
- Elective
- Prerequisites – Studio in Art
- ½ year course – every other day – all year – offered every other year (could be offered every year)
- ½ unit of credit
- This is an introductory, hands-on, class in which students will be exposed to digital photography. Topics cover the history of photography, what makes a good photo, photographic composition, photographic techniques, and some digital editing using Adobe Photoshop. The class goes on walking tours around campus and off campus around town. Students may use their own digital cameras.
- Final Portfolio
- Students will be expected to enter work in art shows and the school literary magazine.
Course Title: Studio in Ceramics

Number of Credits: 1 Credit

Grade Level(s): 10-12

Course Description:

- Prerequisites – Studio in Art
- This is a hands-on course designed for the student who prefers a 3D approach to creating art and enjoys using clay to be creative. The course involves, but is not limited to: basic hand building techniques such as slab, coil and pinch; throwing on the wheel; glazing, under glaze, firing, trimming, and pouring molds.
- Students may be asked to keep a sketchbook of ideas and to help them in planning out different angles of their work.
- Final Project
Course Title: Math and Finance

Number of Credits: 1 Credit

Grade Level(s): 10-12

Course Description:

This course is designed to develop skills and knowledge that will be used to help students develop sound money-management skills and inform them of the financial planning process. Topics include: budgeting and all that it entails, including sources of income, taxes, benefits and costs of spending; career as it relates to earning potential and what employers are looking for; saving and investments; inflation, risks and returns and relationships between saving and investing; credit, its purpose and the importance of managing and using it wisely; and insurance, how it works, types and costs. This course fulfills one math credit.
Course Title: Computer Applications

Number of Credits: 1 Credit

Grade Level(s): 9-12

Course Description:

This course is designed to introduce students to computer applications using Google Docs, Sheets, Slides and more. Students will create, format, and edit academic and business documents. Students will learn keyboarding skills and proper use of the Internet. Successful completion of this course will enhance students’ employability profile as a result of program proficiency and keyboarding skills.
Course Title: Home and Careers 8

Number of Credits: N/A

Grade Level(s): 8th

Course Description:

This course emphasizes career preparation and exploration, using the Internet for research. Financial literacy is stressed throughout the course as students learn how to develop personal budgets, handle checking accounts, make investments, manage credit wisely, fill out income tax forms and evaluate insurance needs. Students will understand the basics of business organization and be able to discuss current workplace issues.
Course Title: Accounting

Number of Credits: 1 Credit

Grade Level(s): 10-12

Course Description:

Accounting is a one-year course designed to teach accounting principles used in business. Students will record business transactions and prepare financial statements. It will prepare students to keep accurate financial records in order to make wise business decisions.
Course Title: English 7

Number of Credits: N/A

Grade Level(s): 7th

Course Description:

This is a required course for all seventh grade students. It has no prerequisite, is non-credit bearing and is a full-year course. All the literature is historical fiction paralleling the curriculum in Social Studies 7. Every literary work is accompanied by related informational passages. Vocabulary is a workbook, *Vocabulary Workshop, Level B*. Writing instruction is designed to prepare the students for the writing tasks on the NYS Grade 7 ELA Assessment. All writing is done in class, and all writings assignments are written more than once. Grammar is very basic: capitalization, punctuation and parts of speech. Grammar instruction also occurs in conjunction with errors in the writing assignments. There is no midterm examination. The final exam is designed in a similar manner to the NYS exam, testing the students’ reading and writing abilities.
Course Title: English 8

Number of Credits: N/A

Grade Level(s): 8th

Course Description:

This course is a continuation of English 7. This is a required course for all eighth grade students. It has no prerequisite, is non-credit bearing and is a full-year course. All the literature is historical fiction paralleling the curriculum in Social Studies 8. Every literary work is accompanied by related informational passages. Vocabulary is a workbook, *Vocabulary Workshop, Level C*. Writing instruction is designed to prepare the students for the writing tasks on the NYS Grade 8 ELA Assessment. All writing is done in class, and all writings assignments are written more than once. Grammar builds on that learned in Grade 7: parts of sentences, subject and verb and usage. Grammar instruction also occurs in conjunction with errors in the writing assignments. There is no midterm examination. The final exam is designed in a similar manner to the NYS exam, testing the students’ reading and writing abilities.
Course Title: English I

Number of Credits: 1 Credit

Grade Level(s): 9th

Course Description:

**Topics and standards to be covered:**

**Textual Analysis and textual evidence for both literature and informational texts**
- Determine a theme or central idea of a text and analyze in detail its development
- Analyze how complex characters develop over the course of a text
- Analyze how an author's choices create such effects as mystery, tension, or surprise.
- Analyze a particular point of view or cultural experience reflected in a work of literature
- Analyze how the author unfolds an analysis or series of ideas or events and the connections that are drawn between them.
- Analyze how an author uses rhetoric to advance a point of view
- Analyze nuances in the meaning of words with similar denotations.
- Interpret figures of speech in context and analyze their role in the text.
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases

**Writing and Vocabulary**
- Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
- Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
- Use precise language
- Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric

**Speaking and Listening**
- Initiate and participate effectively in a range of collaborative discussions
- Respond thoughtfully to diverse perspectives
- Qualify or justify personal views
- Make new connections in light of the evidence and reasoning presented.
- Integrate multiple sources of information presented in diverse media or formats
- Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.
- Make strategic use of digital media in presentations Demonstrating command of formal English when indicated or appropriate.
Course Title: English II

Number of Credits: 1 Credit

Grade Level(s): 10th

Course Description:

Reading Standards for Literature and Informational Text

- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text
- Determine a theme or central idea and analyze its development throughout the text, including its emergence and shaping and refining by specific details
- Analyze how complex characters develop through the text and advance the plot or theme

Craft and Structure

- Determine the meaning of words and phrases
- Analyze an author’s choices concerning how to structure a text, order events and manipulate time to create mystery, tension or surprise
- Analyze point of view or cultural experience and its reflection in the literature

Integration of knowledge and Ideas

- Analyze the representation of a subject in different mediums
- Delineate and evaluate the argument and specific claims in a text, assessing the value of the reasoning and evidence

Reading Complexity

- Read and comprehend literature, stories, poems, drama, in the 9-10 text complexity band, as well as literary nonfiction, proficiently

Writing Standards

- Write arguments to support claims in an analysis of substantive topics using valid reasoning and evidence
- Write informative/explanatory texts to examine and convey ideas, concepts, and information clearly and accurately
- Draw evidence from literary or informational texts to support analysis, reflection and research
- Write routinely using prewriting, editing and creative skills

Speaking and Listening Standards

- Collaborative discussions
- Draw on preparation by referring to evidence from texts and other research on the topic
- Respond thoughtfully to diverse perspectives
- Communicate effectively
- Use diverse media or formats to access and evaluate information
- Present information logically making use of digital media and formal English

Language Standards

Demonstrate command of English grammar and usage when writing or speaking
Course Title: English III

Number of Credits: 1 Credit

Grade Level(s): 11th

Course Description:

**Topics and standards to be covered:**

**Textual Analysis and textual evidence for both literature and informational texts**

- Cite strong and thorough textual evidence to support analysis
- Determine two or more themes or central ideas of a text and analyze their development over the course of the text
- Analyze the impact of the author's choices to develop and relate elements of drama or comedy in a story,
- Analyze the impact of the author's choices to structure specific parts of a text and its overall meaning as well as its aesthetic impact.
- Determine the meaning of words and phrases as they are used in the text, including figurative and connotative meanings

**Writing and Vocabulary**

- Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
- Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both
- Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

**Speaking and Listening**

- Initiate and participate effectively in a range of collaborative discussions
- Respond thoughtfully to diverse perspectives
- Make new connections in light of the evidence and reasoning presented.
- Integrate multiple sources of information presented in diverse media or formats
- Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.
Course Title: English IV

Number of Credits: 1 Credit

Grade Level(s): 12th

Course Description:

Reading Literature and Informati ve Texts

- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as through inferences, including determining where the text leaves matters uncertain
- Determine themes or central ideas of a text and analyze their developments
- Analyze the impact of the author’s choices regarding how to develop and relate elements of a story or drama
- Determine the meaning of words and phrases, including figurative language and connotative meanings; analyze the impact of specific word choices on meaning and tone
- Analyze author’s choices regarding structure that affect the meaning of the work as a whole
- Analyze point of view and its effects
- Analyze various interpretations of the work
- Demonstrate knowledge of foundational works of literature, include how texts from the same period treat similar themes or topics
- Read and comprehend literature, including stories, dramas, and poems, as well as informational texts at the high end of the grade text complexity band
- Interpret, analyze, and evaluate narratives, poetry, and drama
- Analyze ideas and explain how specific individuals, ideas, or events interact and develop over the text

Writing

- Write arguments to support claims in an analysis of substantive topics or texts using evidence
- Write informative/explanatory texts to examine and convey complex ideas, concepts, and information
- Write narratives to develop real or imagined experiences or events
- Write with an awareness of audience
- Conduct research projects to answer a question or solve a problem
- Gather information from multiple print and digital sources, assess the sources, and use correct MLA citations to avoid plagiarism

Language

- Demonstrate command of English grammar and usage
- Apply knowledge of language to understand how language functions in different contexts to make choices for style or meaning
- Clarify meaning of words

Listening and Speaking

- Participate in collaborative discussions
- Integrate multiple sources of information
- Evaluate a speaker’s point of view, reasoning and use of evidence
- Present information conveying a clear and distinct perspective
Course Title: Advanced Placement Language and Composition

Number of Credits: 1 Credit

Grade Level(s): 11th (Replaces English III)

Course Description:

An AP English Language and Composition course cultivates the reading and writing skills that students need for college success and for intellectually responsible civic engagement. The course guides students in becoming curious, critical, and responsive readers of diverse texts, and becoming flexible, reflective writers of texts addressed to diverse audiences for diverse purposes. The reading and writing students do in the course aim to deepen and expand their understanding of how written language functions rhetorically: to communicate writers’ intentions and elicit readers’ responses in particular situations. The course cultivates the rhetorical understanding of use of written language by directing students’ attention to writer/reader interactions in their reading and writing of various formal and informal genres.

Reading and writing activities in the course also deepen students’ knowledge and control of formal conventions of the English language (e.g., vocabulary, diction, syntax, spelling, punctuation, paragraphing, and genre). This course helps students understand that formal conventions of the English language in its many written and spoken dialects are historically, culturally, and socially produced; that the use of these conventions may intentionally or unintentionally contribute to the effectiveness or ineffectiveness of a piece of writing.
Course Title: Advanced Placement English Literature and Composition

Number of Credits: 1 Credit

Grade Level(s): 12th (Replaces English IV)

Course Description:

An AP English Literature and Composition course engages students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students can deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students consider a work’s structure, style and themes, as well as the use of figurative language, imagery, symbolism, and tone.

The course includes intensive study of representative works from various genres and periods, concentrating on works of recognized literary merit. In this course the pieces chosen for reading, invite and reward rereading and engagement in thoughtful discussion.
Salem Central School District

Health Department
Course Title: Health 8

Number of Credits: N/A

Grade Level(s): 8th

Course Description:

The course focuses on examining health problems and how they affect the three components of our health: physical, mental/emotional, and social. In addition, the course focuses on how decision making, goal setting and values can help prevent the health problems discussed in the course. There are four major units covered during the course. The first unit is an Introduction to Health which builds the foundation for the topics covered during the rest of the course. In this unit, topics include the three major components of our health, major influences on our health, decision making and goal setting. The Mental Health unit covers topics including what is mental health, how to deal with various emotions and stress, mental health disorders and eating disorders. The Substance Abuse unit looks at the basic concepts and terminology associated with drug abuse and then focuses on the use of tobacco, including the dangers of all forms of tobacco, a discussion of the respiratory system, second hand smoke, quitting smoking, why teens start to smoke, and strategies for saying no to tobacco use. The final unit is the Human Sexuality unit which covers the topics of puberty, the anatomy and physiology of the male and female reproductive systems, pregnancy, sexually transmitted diseases, including HIV/AIDS, and discussion of practicing safer sex.
Course Title: Health 9-12

Number of Credits: ½ Credit

Grade Level(s): 9-12

Course Description:

The course content includes 3 major units: Introduction to Health, Substance Abuse and Human Sexuality. The Introduction to Health unit consists of information on what makes up an individual’s health, how we can measure our level of health, decision making and goal setting. The Substance Abuse unit takes a look at commonly abuse drugs, including alcohol, as well as substance abuse related topics such as drunk driving, alcoholism, addiction and treatment. The Human Sexuality unit exams the topics of puberty, the anatomy and physiology of the male and female reproductive systems, pregnancy, sexually transmitted diseases, including HIV/AIDS, and birth control. In addition to these 3 major units, other health topics including cardiovascular disease, cancers, mental health, CPR, first aid, and various body systems are covered both as smaller units and amongst the context of the major units.

The course requirements include, tests, quizzes, current event articles, written homework assignments and projects/presentations. There is a Local final exam that is cumulative at the end of the course.
Course Title: Math 7

Number of Credits: N/A

Grade Level(s): 7th

Course Description:

New York State Math 7 Curriculum with a major focus on proportional reasoning, solving equations, and real life applications. Students will build on concepts learned in sixth grade to understand and apply mathematical problem solving strategies to real world applications. This course is designed to prepare students for the Grade 7 New York State Math Test in the Spring.
Course Title: Math 8

Number of Credits: N/A

Grade Level(s): 8th

Course Description:

Eighth grade mathematics is about 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; grasping the concept of a function and using functions to describe quantitative relationships; analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem.
Course Title: Pre-Algebra

Number of Credits: 1 Credit

Grade Level(s): 9th

Course Description:

Pre-Algebra is designed to give students the fundamental skills necessary to succeed in the Algebra course taken the following year. Students will explore arithmetic operations, number systems and properties, measurement, geometry, and an introduction to algebraic thinking and concepts.
Course Title: Algebra

Number of Credits: 1 Credit

Grade Level(s): 9th-10th

Course Description:

The content standards associated with Algebra I are based on the New York State Common Core Learning Standards for Mathematics and the PARCC Model Content Framework for Algebra I. The content standards define what students should understand and be able to do at the high school level; the Model Content Framework describes which content is included and emphasized within the Algebra I course, specifically.

Standards for Mathematical Practice

The Standards for Mathematical Practice form an important part of the Algebra I course, as well:

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.
Course Title: Geometry

Number of Credits: 1 Credit

Grade Level(s): 9th-10th

Course Description:

The fundamental purpose of the course in Geometry is to formalize and extend students’ geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. Important differences exist between this Geometry course and the historical approach taken in Geometry classes. For example, transformations are emphasized early in this course. Close attention should be paid to the introductory content for the Geometry conceptual category found in the high school CCSS. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.
Course Title: Algebra II/Trigonometry

Number of Credits: 1 Credit

Grade Level(s): 10th-11th

Course Description:

Prerequisite: Passing grade in Geometry and Geometry Regents

This course is aligned to the New York State Algebra2 curriculum and prepares students for the New York State Regents Exam. In this course, there will be a major emphasis on modeling real life phenomena with polynomials, exponential, and trigonometric functions. A second focus is placed on applying Probability and Statistical methods to better understand real data.
Course Title: Introduction to Calculus

Number of Credits: 1 Credit

Grade Level(s): 11<sup>th</sup>-12<sup>th</sup>

Course Description:

- Course Content - Topics Include:
  1. General characteristics of functions
  2. Polynomial functions
  3. Rational functions
  4. Exponential and logarithmic functions
  5. Analytical trigonometry
  6. Complex numbers
  7. Polar coordinates
  8. Matrices
  9. Topics in Calculus

Emphasis will be placed on the applications of the above topics to the natural and social sciences. While students work on achieving mastery of the fundamental mathematics associated with each topic, at the same time they will develop an appreciation of how mathematics is used to model and solve problems that arise in these sciences.
Course Title: Advanced Placement Calculus

Number of Credits: 1 Credit

Grade Level(s): 12th

Course Description:

AP approved curriculum for AB Calculus. Most students who have taken this course have scored well enough to earn college credit for calculus. (Check with the colleges that you are applying to for their specific policy.) The main focus for this first semester college calculus course is placed on understanding the derivative and the antiderivative. Mathematics will be investigated, graphically, algebraically, numerically and verbally to fully explore the concepts. Students will take the AP Exam in early May.
Course Title: Java: Introduction to Computer Programming

Number of Credits: 1 Credit

Grade Level(s): 11th and 12th

Course Description:

Prerequisite: Passing grade on Geometry Regents Students will learn and apply the fundamentals of programming. Students will spend most of the year creating programs and coding in Java, currently one of main object oriented programing languages used by professionals Final Project: Students will spend most of the last 8 weeks of the school year designing and programming their own application, or app. (Past projects have included video games, digital photo manipulation and an application to help a local business manage their clients.)
Course Title: Science 7

Number of Credits: N/A

Grade Level(s): 7th

Course Description:

**Life Science**
- Grade Level: 7
- Length of course: Full Year
- **Course Description**: Seventh Grade Life Science explores the characteristics and structure of a variety of living organisms. The course is divided into units such as Characteristics of Life and Classification, Cells, Reproduction and Development, Genetics and Evolution, Human Body Systems, and Ecology. Science skills such as Metric Measurement and the Scientific Method are taught at the beginning of the year and reinforced throughout the year as we complete many hands on labs and activities.
- Midterm and final exams are given in this course.
Course Title: Science 8

Number of Credits: N/A

Grade Level(s): 8th

Course Description:

Physical Science
- Grade Level: 8
- Length of course: Full Year
- Course Description: During the course of the year, physical science students study the relationships between energy and matter, which involve experimentation, creative projects and laboratory demonstrations. Students also study units on lab skills, metrics and measurement, chemistry, waves, electricity and magnetism and motion and forces. Many hands on labs and activities are integrated throughout the course.
- Students prepare for the NYS Intermediate Level Science Assessment (ILSPET). The first part of this assessment tests students on their knowledge of laboratory skills such as microscope, triple beam balance and graphing. The second component is written and requires students to answer questions that reflect content taught in grades five through eight.
- A comprehensive final exam is given in this course.
Course Title: Living Environment (Biology)

Number of Credits: 1 Credit

Grade Level(s): 9th

Course Description:

**The Living Environment (Biology)**

- Graduation Requirement
- Prerequisites – 7th and 8th grade science
- Length – 1 year course
- Course Content – Classification, Biochemistry and Enzymes, Cells and Cellular Processes (Photosynthesis, Cellular Respiration, Mitosis, Meiosis), Genetics, Human Body Systems, Disease, Evolution, Ecology
- Special Features – Biology lab
- Living Environment Regents Exam
- Offered yearly
Course Title: Earth Science

Number of Credits: 1 Credit

Grade Level(s): 10th

Course Description:

The Physical Setting/Regents Earth Science course is a laboratory and lecture course offered to 10th graders which utilizes the process of scientific investigation through the study of our physical world. This is a required course for graduation and upon completion of this year-long course the student will receive 4 credits toward graduation. Earth science is offered every year and there are no prerequisites.

Students enrolled in this course analyze and describe Earth’s interconnected systems and how they are changing due to natural processes and human influence; which includes several different topics studied in geography, geology, historical geology, meteorology, oceanography, environmental awareness, astronomy; emphasis is placed on scientific inquiry an analysis of data relevant to the NYS Learning Standards. Students will be taught to formulate questions that relate to their experiences, and to use their acquired skills to investigate these questions. The course will be taught by a combination of lectures, laboratory work, visual aids and computer work (primarily on Google Earth).

New York State Regents Earth Science Course Requirements:

1. Successful completion of class work.
2. Successful completion of 1,200 minutes of laboratory work by June 1st 2016.
3. Passing the New York State Regents Final Exam in June.
Course Title: Chemistry

Number of Credits: 1 Credit

Grade Level(s): 11th-12th

Course Description:

Regents Chemistry is a student-centered, problem-solving approach to the discipline of chemistry. It is the goal to encourage science process skills that will provide students with background and curiosity to investigate important issues in the chemical world around them. Students will develop skills in: observation, measurement, analysis and calculation, manipulation and application of variables; enabling them to problem solve in both the theoretical, physical, and practical setting. Ultimately, the student will be better prepared to face and contribute to the solution of global issues by increasing scientific literacy. The course is designed to challenge students to improve abstract and analytical thinking, and provide students an opportunity to reach the Advanced Regents Diploma requirements in science.

Required Materials:

- Chemistry/Physical Setting Reference Tables
- 3-Ring Binder
- Pen and Pencil
- Scientific Calculator Recommended (NO GRAPHING CALCULATOR)

Texts:

The major texts for this course include, but are not limited to, the following:

- Chemistry, Addison/Wesley 2002, by Wilbraham, Staley, Matta, Waterman
Course Title: Physics

Number of Credits: 1 Credit

Grade Level(s): 11th-12th

Course Description:

• Course Content – Topics Include:

1. MECHANICS
   • Kinematics
   • Dynamics
   • Momentum
   • Work and Energy

2. ELECTRICITY and MAGNETISM
   • Electrostatics
   • Circuits
   • Electromagnetism

3. WAVE PHENOMENON
   • Wave characteristics
   • Wave Phenomenon
   • Sound
   • Light

4. MODERN PHYSICS
   • Local Final Exam or Regents Exam – A Regents Physics Exam is administered in June.
   • Special Features – A laboratory experience, with a minimum of 1200 minutes, is associated with this course. Physics Lab meets every other day.
Course Title: AP Biology

Number of Credits: 1 Credit

Grade Level(s): 11th-12th

Course Description:

- Course Content:
  - The Chemistry of Life
  - The Cell
  - Metabolism
  - Cellular Respiration and Photosynthesis
  - Cell Communication
  - The Cell Cycle and Mitosis
  - Sexual Reproduction
  - Classification
  - Plants
  - Animal Form and Function
  - Ecology
  - Viruses and Bacteria

- AP Biology Exam and Final Project
- Special Feature: AP Biology Lab
Course Title: Forensics

Number of Credits: 1 Credit

Grade Level(s): 11th-12th

Course Description:

This hands-on, laboratory based course focuses on the collection, identification and analysis of crime scene evidence. Emphasis will be placed on the methods that link suspect, victim, and crime scene. Laboratory exercises will include but are not limited to: fingerprinting, hair and fiber examination, blood typing, blood spatter analysis, DNA fingerprinting, forensic anthropology and entomology. Case studies and current events will be explored. This course culminates in a final project.
Course Title: Nanotechnology

Number of Credits: ½ Credit

Grade Level(s): 11th-12th

Course Description:

This course presents students with an introduction to the definitions, principles and applications of nanotechnology. Students will engage in discussion of emergent nanoscale properties, atomic and molecular self-assembly and concepts of bottom-up and top-down processing and fabrication. Introduction to selected nanoscale systems, including quantum dots, carbon nanotubes, and graphene. Special attention is given to nanoscale materials and devices because of their potential for defining the next generation of important materials and machines. A final project is given in this course.
Course Title: Earth Science
Number of Credits: 1 Credit
Grade Level(s): 10th

Course Description:
Earth Science course is a laboratory and lecture course utilizing the process of scientific investigation through the study of our physical world. Students enrolled in this course analyze and describe Earth’s interconnected systems and how they are changing due to natural processes and human influence. That includes several different topics studied in geography, geology, historical geology, meteorology, oceanography, environmental awareness, astronomy; emphasis is placed on scientific inquiry an analysis of data relevant to the NYS Learning Standards. Students will be taught to formulate questions that relate to their experiences, and to use their acquired skills to investigate these questions. The course will be taught by a combination of lectures, laboratory work, visual aids and computer work (primarily on Google Earth).
Course Title: Environmental Science

Number of Credits: 1 Credit

Grade Level(s): 11th and 12th

Course Description:

- Elective (can count as third non-lab science)
- Prerequisites – Biology and Earth Science
- Full Year
- This course includes:
  - Earning college credit from Morrisville State College
  - Understanding human impacts on our planet
  - Debating current issues
  - Examining the environmental issues facing the 21st century

Environmental Science is an applied science that challenges students to think about how their lifestyle impacts the planet. Topics include biodiversity, energy use, garbage production, land use and growing number of humans occupying Earth. Students have the opportunity to earn three college credits from Morrisville State College.

The final exam for this course is given in June before Regents exams

This course is offered every year
Course Title: Social Studies 7

Number of Credits: N/A

Grade Level(s): 7th

Course Description:

TOPICS TO BE COVERED*:

- Geography
- Native American
- Exploration
- American Colonies: Spanish, French, Dutch, English
- 13 English Colonies
- French and Indian War
- American Revolution
- U.S. Constitution – Constitutional Convention
- Presidents Washington through Abraham Lincoln
- War of 1812
- Jacksonian Era
- 1st Political Parties
- Louisiana Purchase
- Manifest Destiny
- Mexican War
- Westward Expansion
- States’ Rights
- Background to Civil War
- Civil War
*The topics are not limited to those listed above

TEXTBOOK: The American Nation
Course Title: Social Studies 8

Number of Credits: N/A

Grade Level(s): 8th

Course Description:

TOPICS TO BE COVERED*:

Reconstruction
Settling the West
Industry
Immigration and Cities
Imperialism
Reform and Progressive Era
World War I
1920s
The Great Depression
World War II
Postwar - Domestic Changes
Postwar - Foreign Policy
Cold War and Post-Cold War
1980- Present

*The topics are not limited to those listed above

TEXTBOOK: The American Nation
Course Title: Global I

Number of Credits: 1 Credit

Grade Level(s): 9th

Course Description:

Global I focuses on the history of civilization from the beginning of mankind through the European Age of Absolutism. All characteristics of society will be developed for each world region studied. This will include geographic, political, historical, and cultural development while incorporating the major themes of Global History; belief systems, trade, migration, cultural diffusion, conflict, and the establishment of empires. Students will develop and strengthen interpretation skills through a myriad of sources and use these skills to develop both document based and thematic essays. This course fulfills the first half of a two-year sequence.
Course Title: Global II
Number of Credits: 1 Credit
Grade Level(s): 10th

Course Description:
This course is the second part of the two year course, Global History and Geography. The second year will have the students study the Age of Reason through the present day. Emphasis will be placed on turning points, connections between events, revolutions, and popular movements. The same six major themes of Global History studied in year one will continue to be addressed, yet a more global connection between people and events will be examined. The Global History and Geography Regents Exam will be taken at the end of this course.
Course Title: United States History and Government

Number of Credits: 1 Credit

Grade Level(s): 11th

Course Description:

This course is designed to provide students with a survey of American History and Government from colonial times to the present. Topics covered in this course include exploration, colonization, revolution, government building, sectionalism, manifest destiny, the Civil War, industrialization, immigration, imperialism, the world wars, the Cold War, and contemporary American issues. All students must pass both the course and the Regents examination in U.S. History & Government.
Course Title: Government/Economics

Number of Credits: ½ Credit and ½ Credit

Grade Level(s): 12th

Course Description:

**Government**

This course is a state-mandated graduation requirement which focuses on the formulation, decision-making, implementation, and evaluation of public policy at the federal, state, and local levels of government. Avenues of citizen participation will be explored, with particular attention to the roles of the media, political parties, interest groups, elections, and voting in the political process. This course culminates with a cumulative final exam. All students must pass Government in order to graduate.

**General Objectives:**

1. Students will understand the historical foundations of the American political system.
2. Students will be able to discuss the role of the public in the American political process and the channels through which the public participates
3. Students will gain insight into the major institutions in American government and how they interact with one another and the public
4. Students will have some understanding of how the government makes policy and why decisions are made as they are.
5. Students will possess a knowledge and awareness of contemporary affairs by being exposed to national and international problems and concerns
6. To impress upon students the importance of civic responsibility and their role in the community.

**Economics**

Students in this course will study the economic system of the United States and its operation. They will examine the economic interdependence of the world today and their role as workers, investors and voting citizens. Students will demonstrate a basic understanding of economic principles that will allow them to make informed decisions about our democracy and economy. Students must pass economics in order to graduate.
Course Title: AP United States History

Number of Credits: 1 Credit

Grade Level(s): 11th-12th (Replaces US History)

Course Description:

Prerequisite(s): Required Summer Assignment

Topics to be Covered*:

   Period 1 – 1491-1607 – Native American contact with Europeans
   Period 2 – 1607-1754 – North American Colonization
   Period 3 – 1754-1800 – Colonies to a New Nation
   Period 4 – 1800-1848 – Rapid Economic/Territorial/Industrial Growth
   Period 5 – 1848-1877 – A Nation Divided - Reunited
   Period 6 – 1865-1898 - Agriculture to Urban Industrial
   Period 8 – 1945-1980 – Post WWII – Cold War
   Period 9 – 1980-Present – Conservatism thru the 21st century Current Events

*The topics are not limited to those listed above

Textbook: Out of Many – A History of the American People
Course Title: Advanced Placement Psychology

Number of Credits: 1 Credit

Grade Level(s): 11th-12th

Course Description:

This class is designed for those students who wish to experience a university-level introductory course in psychology. Psychology is the study of behavior and mental processes. It is a science with roots in the fields of biology, philosophy and physiology. The philosophical background causes psychologists to wonder about the behavior and thinking of humans, and the more science-based knowledge allows us to test our hypotheses. Discussions, lectures, and assignments will introduce the student to developing an understanding of human behavior.

The primary questions addressed in the course, are "Why do people act the way they do in specific situations?" and "How can people change their behaviors?" This introductory course will expose students to many of the fields of interest within Psychology. Topics covered will be the more familiar Personality Development, Altered States of Consciousness (sleep, dreams, and hypnosis), Learning, Memory, and Abnormal Behavior. Students will also study the Biological Basis of Behavior, Motivation, Sensation, Perception, Health Psychology and Social Psychology. Students will also learn about the methods psychologists use in their science and practice. In addition, students are expected to develop their critical thinking skills throughout the course, while building their reading, writing, and discussion skills. This is a college level course and will deal with and touch on controversial topics.
Course Title: Advanced Placement World History and Geography

Number of Credits: 1 Credit

Grade Level(s): 10th (Replaces Global II)

Course Description:

AP World History is a one year course concentrated upon a thematic approach of study. Using historical thinking skills such as chronological reasoning, comparison, contextualization, historical interpretation and synthesis, students will study six historical time period spanning prehistory to present day with specific emphasis on five themes:

1. Interaction between humans and the environment.
2. Development and interaction of cultures
3. State building, expansion and conflict, (4)
4. Creation, expansion and interaction of economic systems, (5)
5. Development and transformation of social structures.

Students will take the AP World History test in May and the NYS Global Regents in June.
(Prerequisite: Global I)
Course Title: Spanish A

Number of Credits: .5 Credit

Grade Level(s): 7-12

Course Description:

Spanish A is a half credit course offered to grades 7-12 but is primarily taken by 7th graders. It fulfills half of the NYS requirement for one credit of proficiency in a Language other than English. There are no prerequisites. The course lasts one year and the final exam is a local exam. Beginning topics such as numbers, food, family and clothing are used to develop oral and written communication in Spanish. Relevant cultural topics are also introduced. Spanish A and Spanish B = Spanish 1.
Course Title: Spanish B

Number of Credits: .5 Credit

Grade Level(s): 8-12

Course Description:

Spanish B is a half credit course offered to grades 8-12 but is primarily taken by 8th graders. It fulfills the second half of the NYS requirement for one credit of proficiency in a Language other than English. Spanish A is the pre-requisite. The course lasts one year and the final exam is developed by a consortium of NYS teachers. This exam takes the place of the NYS Proficiency Exam. Topics such as community, health and entertainment are used to continue to develop oral and written communication in Spanish. Relevant cultural topics are also incorporated into the curriculum. Spanish A and Spanish B = Spanish 1.
Course Title: Spanish II

Number of Credits: 1 Credit

Grade Level(s): 9-12

Course Description:

Spanish II is a one-credit course offered to grades 9-12, but is primarily taken by 9th graders. It is an elective, but part of a sequence that leads to a Regents diploma. Spanish A and B are the prerequisites. The course lasts one year and the final exam is developed locally.

The emphasis of the course is on basic discourse, an enriched vocabulary and a better understanding of the structure of language. Such themes as identity, community and interpersonal relationships are used to promote oral and written communication. In order to develop confident communicators, common life scenarios are reenacted throughout the year. The course also serves as an introduction to culture through studies of specific societies and time periods in Spanish speaking countries. Culture is discussed through authentic short stories, art and cinema.
Course Title: Spanish III

Number of Credits: 1 Credit

Grade Level(s): 9-12

Course Description:

Spanish III is a one-credit course offered to grades 9-12, but is primarily taken by 10th graders. It is an elective, but the final part of a sequence that leads to a Regents diploma. Spanish A, B and II are the prerequisites. The course lasts one year and the final exam is developed locally.

The emphasis of the course is to develop confident communicators for a wide variety of topics. A discussion based course, students are asked to be flexible communicators. Authentic texts, art and cinema are used to expand their vocabulary, explore more advanced language structure, promote discussion and develop a stronger worldview. Themes include identity, democracy and freedom.
Course Title: Spanish IV

Number of Credits: 1 Credit

Grade Level(s): 9-12

Course Description:

Spanish IV is a one-credit course offered to grades 9-12, but is primarily taken by 11th graders. It is an elective. The prerequisites include Spanish A, B, II and III. The course lasts one year and the final exam is developed locally.

The emphasis of course is to promote discussion. A continuation from Spanish III, students should be able to confidently discuss a variety of topics. More emphasis is placed on listening to and responding to the comments of others.

Apart from colloquial discussion, the course is intended to prepare students for either the AP Spanish Literature and Culture course or the AP Spanish Language and Culture course. Content includes news articles, movies, art and literature. Students will explore culture, better understand historical time periods, develop their worldview and discuss universal concepts through the works of notable authors such as Juan Rulfo, José Martí, Julio Cortázar and Federico García Lorca.
Course Title: Advanced Placement Spanish Language and Culture

Number of Credits: 1 Credit

Grade Level(s): 12th

Course Description:

At the core of the AP Spanish Language and Culture course are six groups of learning objectives identifying what students should know and be able to do across the three modes of communication. These objectives outline expectations of student abilities in the following areas:

- Spoken Interpersonal Communication
- Written Interpersonal Communication
- Audio, Visual, and Audiovisual Interpretative Communication
- Written and Print Interpretive Communication
- Spoken Presentational Communication
- Written Presentational Communication

When communicating, students in the AP Spanish Language and Culture course demonstrate an understanding of the culture(s); incorporate interdisciplinary topics (connections), make comparisons between the native language and the target language and between cultures.
Salem Central School District

Technology Department
Course Title: Drawing and Design for Production

Number of Credits: 1 Credit

Grade Level(s): 9-12

Course Description:

This course will provide opportunities in the areas of design and drawing through creative thinking, decision-making and problem-solving experiences. Strategies of design and drawing appropriate now and in the future are emphasized. A shift from the conventional learning methods to this design problem approach is the basis for this syllabus. Students will learn drafting concepts, 2D and 3D drawing, Computer Aided Drafting, Computer simulations, and use Solid Works CAD software and tools and machines to solve problems, design prototypes, and develop real world solutions.
Course Title: Energy and Power

Number of Credits: 1 Credit

Grade Level(s): 9-12

Course Description:

Students will design, build, and test several energy projects to learn principles related to renewable energy, solar energy, alternative fuels, and fuel cells. Students will learn about electricity generation, vehicle power, household energy use, use of fossil fuels, hydraulics and pneumatics, and the latest energy technologies. Students will learn basic principles of internal combustion engines, and disassemble and reassemble a small engine, and demonstrate critical engine failure analysis.
Course Title: Transportation

Number of Credits: ½ Credit

Grade Level(s): 9-12

Course Description:

A 1/2-unit course presenting an overview of aerospace, land, and marine transportation systems organized into five topics—inputs, resources, processes, outputs, and control—which are specifically tailored to transportation.

Land Transportation Systems: The modes of transportation covered are: (1) fixed (rail), (2) random (auto, recreational), and (3) stationary (pipeline, conveyor, elevator).

Marine Transportation Systems: Inland marine content is devoted to canals, domestic lakes, and coastal waters. The maritime content treats transport in large inland lakes and oceans.

Aerospace Transportation Systems: This module, like the two preceding, is organized around the systems concept. Content is divided into systems that operate in the atmospheric environment and those that operate in the space environment.
Course Title: Communications

Number of Credits: ½ Credit

Grade Level(s): 9-12

Course Description:

A 1/2- unit course providing instruction in the electronic, graphic, and photographic systems which people use to communicate information and ideas. This course examines how people communicate information and ideas. Student participation in individual and group activities involving photo image editing, desktop publishing, audio/sound design and presentation graphics. Students will be introduced to the latest communications technology and career opportunities. The projects are driven by client needs, and the communication processes used to meet them. Included are media such as television, radio, motion pictures, printing, photography, and computer-based communication. Students with a background in communications will be enabled to communicate clearly and concisely in an information world.
Course Title: Construction

Number of Credits: ½ Credit

Grade Level(s): 9-12

Course Description:

A 1/2-unit course, that provides instruction in the construction aspects of production. Topics are specifically tailored to construction of a structure on a site. They include planning, sources of capital, and building foundations, superstructures, floors, walls, ceilings, and roofs. The impact of construction on the environment is addressed as well.
Course Title: Materials and Processing

Number of Credits: ½ Credit

Grade Level(s): 9-12

Course Description:

Students will design, plan, build, and test various wood and metal projects. Principles learned will include safety, proper tool & machine use, measuring, designing, modeling, creating a plan, material selection, squaring material, processing materials, finishing, and project testing. Wood machine use will include the table saw, radial arm saw, sliding miter saw, drill press, and various power and hand tools. Metal machine use will include arc welder, metal cutting machines, grinder, and various metal working power and hand tools.
Course Title: Robotics

Number of Credits: ½ Credit

Grade Level(s): 9-12

Course Description:

Students will design and build a radio controlled robot to perform specific tasks. Gears, Drive train design, electric motor operation, radio control, pneumatics, and problem solving skills will be used to create a RC mobile robot.
Course Title: Career and Financial Management

Number of Credits: ½ Credit

Grade Level(s): 9-12

Course Description:

Students will create a company that designs, mass produces, and sells a product to learn about business finance, stock market, entrepreneurs, business models, personal finance, supply and demand, marketing, career choices and local economics.