# Washingtonville High School

**Guidance Department**

# 2026-2027

# Course Guide

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# ENGLISH DEPARTMENT

Course Offerings:

| | | |
|---|---|---|
| English 9 SP | 40 weeks 1 unit | 9 |
| English 9 Co-Teach | 40 weeks 1 unit | 9 |
| English 9 Regents | 40 weeks 1 unit | 9 |
| English 9 Enriched | 40 weeks 1 unit | 9 |
| English 10 SP | 40 weeks 1 unit | 10 |
| English 10 Co-Teach | 40 weeks 1 unit | 10 |
| English 10 Regents | 40 weeks 1 unit | 10 |
| English 10 Enriched | 40 weeks 1 unit | 10 |
| English 11 SP | 40 weeks 1 unit | 11 |
| English 11 Co-Teach | 40 weeks 1 unit | 11 |
| English 11 Regents | 40 weeks 1 unit | 11 |
| English 11 Enriched | 40 weeks 1 unit | 11 |
| English 12 SP | 40 weeks 1 unit | 12 |
| English 12 Co-Teach | 40 weeks 1 unit | 12 |
| English 12 | 40 weeks 1 unit | 12 |
| English 12 Media Journalism | 40 weeks 1 unit | 12 |
| English 12 Creative Writing & Literature | 40 weeks 1 unit | 12 |
| English 12 Laughter in Lit. & Life | 40 weeks 1 unit | 12 |
| English 12 Evolution of the Hero | 40 weeks 1 unit | 12 |
| SUPA English* | 40 weeks 1 unit | 12 |
| The Detective Story 1 | 20 weeks ½ unit | 11, 12 |
| The Detective Story 2 | 20 weeks ½ unit | 11, 12 |
| Shakespeare 1 | 20 weeks ½ unit | 11, 12 |
| Shakespeare 2 | 20 weeks ½ unit | 11, 12 |

* College fees apply

**English Course Descriptions:**

| | | |
|---|---|---|
| **English 9 SP** | 40 weeks 1 unit | 9 |
| **English 9 Co-Teach** | 40 weeks 1 unit | 9 |
| **English 9 Regents** | 40 weeks 1 unit | 9 |
| **English 9 Enriched** | 40 weeks 1 unit | 9 |

English 9 is a required course for all freshmen and is the first in a four-year sequence. It is designed to continue developing students' literacy skills (reading, writing, listening and speaking) as defined by the NYS Next Generation Learning Standards.

| | | |
|---|---|---|
| **English 10 SP** | 40 weeks 1 unit | 10 |
| **English 10 Co-Teach** | 40 weeks 1 unit | 10 |
| **English 10 Regents** | 40 weeks 1 unit | 10 |
| **English 10 Enriched** | 40 weeks 1 unit | 10 |

Prerequisite: Passing English 9. Placement in Enriched based on passing with a 90 or higher and teacher recommendation.

English 10 is a required course for all sophomores and is the second in a four-year sequence.
It is designed to continue developing students' literacy skills (reading, writing, listening and speaking) as defined by the NYS Next Generation Learning Standards.

| | | |
|---|---|---|
| **English 11 SP** | 40 weeks 1 unit | 11 |
| **English 11 Co-Teach** | 40 weeks 1 unit | 11 |
| **English 11 Regents** | 40 weeks 1 unit | 11 |
| **English 11 Enriched** | 40 weeks 1 unit | 11 |

Prerequisite: Passing English 10. Placement in Enriched based on passing with a 90 or higher and teacher recommendation.

English 11 is a required course for all juniors and is the third in a four-year sequence. It is designed to continue developing students' literacy skills (reading, writing, listening and speaking) as defined by the NYS Next Generation Learning Standards. Students are required to pass the ELA Regents in order to graduate and will have the opportunity to take the exam in January and June during this course.

**English Course Descriptions – continued:**

| | | |
|---|---|---|
| **English 12 SP** | 40 weeks 1 unit | 12 |
| **English 12 Co-Teach** | 40 weeks 1 unit | 12 |
| **English 12** | 40 weeks 1 unit | 12 |

English 12 is for students who wish to continue applying the tools, techniques and materials of literary scholarship. The class will strengthen communication skills by engaging students in a variety of listening, speaking, critical thinking, reading and writing activities. Students will develop these skills through the use of several genres of literature as well as a variety of writing modes.

| | | |
|---|---|---|
| **English 12 Media Journalism** | 40 weeks 1 unit | 12 |

Journalism is for students who wish to be acquainted with magazine and newspaper feature writing, editorial and opinion writing, surveys, and advertising. This interactive, product driven course will encourage real-world writing and thinking skills. Students will assist in the writing, editing, and publishing aspect of original newspapers and magazines using various computer programs. Students must work well independently as well as cooperatively in a small group setting. Students will conduct original research including a series of interviews for articles. Students will also explore career opportunities in the field of journalism. Vocabulary, style, libel and ethics units will round out the course.

| | | |
|---|---|---|
| **English 12 Creative Writing and Literature** | 40 weeks 1 unit | 12 |

Creative Writing is for students who wish to **write** fiction and non-fiction, prose and poetry. In this structured course, students will strive to improve their writing skills through guided exercises and modeling. Students will read literature and non-fiction for both discussion of style and form and inspiration for original work. Public speaking is required and will include monologue, dialogue and formal speeches. The creative thinker/writer who is disciplined enough to work independently and meet deadlines will find success in this class. The final assessment will be a portfolio.

**English 12 Laughter in Literature and Life** 40 weeks 1 unit 12

For students who wish to explore the power of laughter in literature. This course will examine the power of laughter to add levity to our lives, as well as to grapple with some of the most serious social and personal matters we face. Importantly, this art form is currently under scrutiny; therefore, significant consideration will be given to what is and what is not funny, as the contexts that create such distinction. After all, as a means of exposing human folly, comedy is nothing new. Forms to be considered range from slapstick to parody and caricature, to satire and dark humor. Texts under study will include traditional written works as well as film, television, stand-up performances, political cartoons and memes.

**English 12: The Evolution of the Hero** 40 weeks 1 unit 12

The Evolution of the Hero is for students who love the classic adventure story and wish to explore how the hero has evolved over the course of human history. This course will ask students to study a number of works from ancient mythology, to comic heroes, to movie adventures and the many incarnations of contemporary heroes in modern texts. As students read and explore these texts, they will make informed opinions and analyze the role of the hero, and how that role has evolved over the course of societal history. Students will engage in discussions, work both independently and collaboratively, and fine tune their research skills.

**SUPA English** 40 weeks 1 unit 12
Prerequisite: Recommendation English Department
Weighting: This course is weighted by a factor of 1.10
SUPA English is a college-level course that has <u>two</u> components.

> **<u>WRT 105 (Writing Studio I)</u>** – is an analytically-based writing course where students will compose a variety of texts as a process (inventing, drafting, revising, editing) that takes place over time and that addresses diverse audiences and rhetorical contexts. Students will learn critical techniques of reading through engagement with texts that raise issues of diversity and community.
>
> **<u>ETS 181 (Class & Literary Texts)</u>** – will allow students to gain an expanded understanding of textuality, the world as a text (which may include film, television programs, public spaces, buildings, clothing, the internet, etc), and will apply the language and methods of the discursive practice of textual criticism. Students will gain a sense of how context shapes the production and reception of texts (that "truth" is a social construction and that culture shapes meaning).

Although SUPA English is not a required course, it does satisfy the NYS requirement for English 12. Students are responsible for the tuition fee ($115 per credit payable to Syracuse University). Upon successful completion of the course, students will receive six credits from Syracuse University, which may transfer to most colleges and universities. It is the responsibility of the student to consult with potential colleges/ universities regarding their policy for accepting SUPA credits.

**English Course Descriptions – continued:**

**The Detective Story I** 20 weeks 1/2 unit 11, 12
Prerequisite: None

Who did it? Where? With what weapon? Sound familiar? Yes, Clue! If you like your "old time" detective stories, come join me in Semester 1. We will dive into the works of Sir Conan Doyle, Agatha Christie and more. You will have an opportunity to create your own complex characters.

**The Detective Story II** 20 weeks 1/2 unit 11, 12
Prerequisite: None

How did the detective story evolve over time? Well, come join me in Semester 2 of this course. We will read modern detective stories such as Dan Brown and James Patterson novels. You will have an opportunity to write your own detective stories!

**Shakespeare I** 20 weeks 1/2 unit 11, 12
Prerequisite: None

Shakespeare is a class for students who want to be creative. If you like the histories and tragedies, join me on this journey back in time. Here we will stick to the classic readings and opinion type journal writings. We will write poetry and you will have an opportunity to create your own monologues and characters to emulate Shakespeare styles.

**Shakespeare II** 20 weeks 1/2 unit 11, 12
Prerequisite: None

"To Thine Own Self Be True." Shakespeare is a class for students who want to be creative. If you like romance and comedy, join me on this journey back in time. In this semester you will have the opportunity to create your own play to emulate Shakespeare styles. The course will commence with a senior memory book based on Shakespeare's themes of loyalty and friendship.

# SOCIAL STUDIES DEPARTMENT

Course Offerings:

| | | |
|---|---|---|
| Global History & Geography 1 Co-Teach | 40 weeks 1 unit | 9 |
| Global History & Geography 1 Regents | 40 weeks 1 unit | 9 |
| Global History & Geography 1 Enriched | 40 weeks 1 unit | 9 |
| Global History & Geography 2 Co-Teach | 40 weeks 1 unit | 10 |
| Global History & Geography 2 Regents | 40 weeks 1 unit | 10 |
| Global History & Geography 2 Enriched | 40 weeks 1 unit | 10 |
| US History Co-Teach | 40 weeks 1 unit | 11 |
| US History Regents | 40 weeks 1 unit | 11 |
| College US History * | 40 weeks 1 unit | 11 |
| SS 12: Economics and Government Co-Teach | 40 weeks 1 unit | 12 |
| SS 12: Economics and Government | 40 weeks 1 unit | 12 |
| College Macroeconomics * | 20 weeks 1/2 unit | 12 |
| SUPA Public Affairs 101 * | 20 weeks 1/2 unit | 12 |
| Psychology & Personality Development | 40 weeks 1 unit ** | 11, 12 |
| Human Rights | 40 weeks 1 unit ** | 11, 12 |
| Criminal Justice * | 40 weeks 1 unit ** | 11, 12 |
| America Through Sports | 40 weeks 1 unit ** | 12 |

**** elective**
*** college fees apply**

**Social Studies Course Descriptions:**

| | | | |
|---|---|---|---|
| **Global History & Geography 1 Co-Teach** | 40 weeks | 1 unit | 9 |
| **Global History & Geography Regents** | 40 weeks | 1 unit | 9 |

Global 1 fulfills the NYS requirement for 9th grade. In addition to introducing students to early historical developments as outlined in the NYS Social Studies Frameworks, the course also focuses on skill development: gathering, interpreting and using evidence; chronological reasoning and causation; comparison and contextualization; geographic reasoning; economics and economic systems; and civic participation. Although the topics of the course will not be specifically tested on the Global 2 Regents exam, the goal of Global 1 is to provide foundational support for 10th grade social studies and beyond. Students must pass this course for graduation.

**Global History & Geography 1 Enriched** 40 weeks 1 unit 9
Recommended criteria for enrollment: minimum grade of 92 in Social Studies 8 plus a strong endorsement from the Social Studies Department.
Weighting: This course is weighted by a factor of 1.05

Global 1 Enriched fulfills the NYS requirement for 9th grade. This course will cover all of the content and skills of the Global I course, with several of the topics explored in more depth. Enriched students will be expected to prepare well at home in order to participate in class activities, which will include discussions, projects, and a variety of reading and writing assignments. Students must pass this course for graduation.

| | | | |
|---|---|---|---|
| **Global History & Geography 2 Co-Teach** | 40 weeks | 1 unit | 10 |
| **Global History & Geography 2 Regents** | 40 weeks | 1 unit | 10 |

Prerequisite: Successful completion of Global Studies 1

Global History & Geography 2 is a required course that continues the skill development and chronological study begun in Global 1. Following the NYS Social Studies Frameworks, the course examines major 18th, 19th, and 20th century events and developments in Europe, Asia, Africa and Latin America, focusing on their interrelationship and impact. At the conclusion of this course, students will take the Global History & Geography Regents exam. Students must pass this course for graduation.

**Social Studies Course Descriptions – continued:**

**Global History & Geography 2 Enriched** 40 weeks 1 unit 10
Recommended criteria for enrollment: minimum grade of 95 in Global 1 Regents OR 88 in Global 1 Enriched plus a strong endorsement from the Social Studies Department.
Weighting: This course is weighted by a factor of 1.05

Global 2 Enriched fulfills the NYS requirement for 10th grade. This course will cover all of the content and skills of Global 2, with several of the topics explored in more depth. Enriched students will work to develop a deep understanding of the content through diligent home preparation, active engagement in class activities, and careful completion of reading, writing, and research assignments. At the conclusion of this course, students will take the Global History & Geography Regents exam. Students must pass this course for graduation.

**US History & Government Co-Teach** 40 weeks 1 unit 11
**US History Regents** 40 weeks 1 unit 11

US History is a required course that offers a chronological introduction to American History as outlined in the NYS Social Studies Framework. Major themes include the study of basic constitutional issues and the application of constitutional principles to both historical and contemporary life. Students will continue to build their reading, writing, and thinking skills as outlined in the Standards for Literacy in Social Studies. At the conclusion of this course, students will take the US History & Government Regents exam. Students must pass this course for graduation.

**College US History** 40 weeks 1 unit 11
Prerequisite: Minimum GPA of 90 plus a strong endorsement from the Social Studies Department
Weighting: This course is weighted by a factor of 1.10

Offered through SUNY Orange College in the High School program, this course is for high-achieving juniors who are ready to study US History at the college level. This course focuses on the political, intellectual, economic and cultural development of the United States from earliest settlements to the twentieth century. In addition to investigating the major events, personalities, and themes of the past, students will develop their skills in reading, writing, thinking, and research at the college level. Upon successful completion of the course, students will earn six credits from SUNY Orange, which may transfer to other colleges and universities. It is the student's responsibility to consult with potential colleges/universities regarding their policy for accepting SUNY Orange credits. Students are responsible for the tuition fee to SUNY Orange (approximately $45 per credit). At the conclusion of this course, students will take the US History & Government Regents exam. This course fulfills the NYS requirement for US History & Government.

**Social Studies Course Descriptions:**

| | | | |
|---|---|---|---|
| **Social Studies 12: Economics and Government** | 40 weeks | 1 unit | 12 |
| **Social Studies 12: Economics and Government Co-Teach** | 40 weeks | 1 unit | 12 |

By integrating the Economics and Participation in Government components of the NYS Social Studies Framework, this course fulfills the requirement for 12th grade Social Studies and is designed to provide students with the skills necessary for informed citizenship. The Economics component introduces students to scarcity, supply and demand, business organizations, economic indicators, fiscal and monetary policies, and trade. Participation in Government content includes the fundamentals of democracy, civil liberties, and civic participation; federalism; and policymaking. Numerous projects and case studies provide students with space to develop their own understanding of the opportunities, rights, and responsibilities of American citizenship.

**College Macroeconomics** 20 weeks 1/2 unit 12
Prerequisite: 85 GPA plus a strong endorsement from the Social Studies Department
Weighting: This course is weighted by a factor of 1.10

This is a college-level introductory economics course focusing on the effects of various forces on the aggregate economy. We begin with an overview of microeconomic concepts and then move on to macroeconomics, where we discuss macroeconomic theories and policies. The course is geared towards knowledge and skills acquisition plus application to real world situations. Students will be expected to perform at the level of a college freshman. They will undertake extensive independent activities and participate in class seminar discussions. Although Marist College Macroeconomics is not a required course, it does satisfy the NYS requirement for Economics. Students are responsible for the tuition fee (approximately $330 for three credits payable to Marist College). Upon successful completion of the course, students will earn three credits from Marist College, which may transfer to other colleges and universities. It is the student's responsibility to consult with potential colleges/universities regarding their policy for accepting Marist College credits.

**SUPA Public Affairs 101** 20 weeks 1/2 unit 12
Prerequisite: High achievement in US History and a strong endorsement from the Social Studies Department
Weighting: This course is weighted by a factor of 1.10

SUPA Public Affairs 101 is a college-level course based on the academic standards and curriculum for Syracuse University's freshman Public Affairs course. It is designed to provide students with research, decision-making and communication skills used in public policy analysis. Although SUPA PA 101 is not a required course, it does satisfy the NYS requirement for Government. Students are responsible for the tuition fee (approximately $350 for three credits payable to Syracuse University). Upon successful completion of the course, students will earn three credits from Syracuse University, which may transfer to other colleges and universities. It is the student's responsibility to consult with potential colleges/universities regarding their policy for accepting SUPA credits.

**Social Studies Course Descriptions:**

**Psychology & Personality Development** 40 weeks 1 unit 11, 12
Prerequisite: Passing Global History Regents and United States History Regents or be concurrently enrolled in a United States History Course.

Psychology is a diverse field that, at its most basic level, seeks to understand human behavior and mental processes. This course is designed to introduce students to the fundamentals of psychology with the hope that some may choose to study the topic in more depth in the future. In this course, students will study human behavior as it relates to themselves, others, and their environment. They will become familiar with psychological research, popular theories, and current trends in the field, as well as the basics of abnormal psychology and evidence-based treatment.

Because of its mature content, this year-long course is designed as an elective for 11th and 12th grade students. It does not satisfy NYS requirements for Social Studies.

**Human Rights** 40 weeks 1 unit 11, 12
Prerequisite: Passing the Global History Regents and United States History Regents or be concurrently enrolled in a United States History Course.

This course will focus on those rights or freedoms that every human being deserves. The Universal Declaration of Human Rights will be used as a guideline to examine how the decisions of ordinary people shape an age and ultimately history itself. By confronting the moral questions inherent in an examination of a particular history, students will consider models that show people moving from thought to judgment to participation. Utilizing historical examples and case studies from both the United States and the world, students will acquire tools to understand how the past relates to current events and how individuals, groups, and governments make a difference.

This is an elective course and does not satisfy NYS requirements for Social Studies.

**Social Studies Course Descriptions:**

**America Through Sports** 40 weeks 1 unit 11, 12
Prerequisite: Completion of US History & Government

Throughout American history, sports have had an impact on the development of society and culture. This class is designed to explore those connections so students will gain an appreciation for how the relationship between sports and our country has dealt with many culturally relevant issues such as nationalism, discrimination, intolerance, gender equity, and economics. Students should arrive to class with a strong interest in American history and the field of sports.

This is an elective course and does not satisfy NYS requirements for Social Studies.

**Criminal Justice** 40 weeks 1 unit 11, 12
Prerequisite: Passing the Global History Regents and United States History Regents or be concurrently enrolled in a United States History Course.
Weight: This course is weighted by a factor of 1.10

This course examines the law in the United States with an emphasis on New York State. A general overview of the criminal justice system is the main objective of the course. The nature and causes of crime and crime victims will be presented. The role of police officers, prosecutor, defense attorney, judge, jury and probation officers will be thoroughly examined. The course will also include an in-depth probe of plea bargaining, the bail system, defendant's rights and jury duty. Students are eligible to earn three (3) college credits through Marist College if they have a GPA of 85 or higher, which may be transferable to other colleges/universities. These students will be responsible for paying Marist College tuition and fees (approximately $300 for three credits). It is the student's responsibility to consult with potential colleges/universities regarding their policy for accepting Marist College credits.

This is an elective course and does not satisfy NYS requirements for Social Studies.

# MATHEMATICS DEPARTMENT

Course Offerings:

| | | |
|---|---|---|
| Consumer Math | 40 weeks 1 unit | 10,11,12 |
| Technical Math | 40 weeks 1 unit | 10,11,12 |
| Algebra 1A | 20 weeks 1 unit | 9 |
| Algebra | 40 weeks 1 unit | 9 |
| Algebra 1B | 20 weeks 1 unit | 9 |
| Topics in Algebra | 40 weeks 1 unit | 10,11,12 |
| Geometry | 40 weeks 1 unit | 10,11,12 |
| Geometry with Proof | 40 weeks 1 unit | 10,11,12 |
| Geometry/Enriched | 40 weeks 1 unit | 9,10 |
| Algebra 2 | 40 weeks 1 unit | 11,12 |
| Intermediate Algebra /Trigonometry | 40 weeks 1 unit | 11,12 |
| Algebra 2 Enriched | 40 weeks 1 unit | 10,11 |
| Calc-Prep | 40 weeks 1 unit | 11,12 |
| Math 12 – Foundations in College Math | 40 weeks 1 unit | 11,12 |
| *Advanced Placement Calculus AB | 40 weeks 1.5 units | 12 |
| *Advanced Placement Calculus BC | 40 weeks 1.5 units | 12 |
| **Introduction to Statistics | 40 weeks 1 unit | 12 |
| College Algebra | 20 weeks 1 unit | 11,12 |
| College Trigonometry | 20 weeks 1 unit | 11,12 |

***The Advanced Placement Exam of the College Board is required after completion of this course -fees apply. Financial assistance is available for those that meet College Board guidelines.**

****College fees apply**

**Mathematics Course Descriptions:**

**Consumer Math** 40 weeks 10, 11, 12
Prerequisite: Successfully passing Algebra Self-contained course and state assessment, recommendation of Algebra SP teacher and annual CSE meeting.

In this course students will learn and apply fundamental mathematical concepts such as basic order of operations, real numbers, percent, measurement, calculator usage, fractions, decimals, problem solving, ratios, and proportions to situations as they occur in "daily life." Topics will include taxes, personal finance (budgeting), purchasing, finance, fitness, housing, insurance, transportation and investment. This course features examples in a problem-solving format that allows students to use mathematical skills in consumer situations. The primary goal of this math course is to develop student abilities to make rational and informed decisions to lead successful lives in an interdependent world.

**Technical Math** 40 Weeks 1 unit 10, 11, 12
Prerequisite: Completion of Algebra 1 and passing Regents exam

Tech Math emphasizes the interconnections among mathematics, engineering, technology, science, and the humanities, to prepare students to become creative problem-solvers, effective communicators, and tomorrow's leaders through a rigorous, specialized curriculum which is based on the principles of project-based learning and collaborative partnerships. Students engage in real-world, hands-on projects based on authentic applications of New York State Next Generation Mathematics Learning Standards.

**Mathematics Course Descriptions - continued:**

**Algebra 1A** 20 Weeks 1 unit 9
**Algebra** 40 Weeks 1 unit 9
Prerequisite: 80 average or above in 7th and 8th grade mathematics

This Regents level algebra course is aligned to the NYS Next Generation Mathematics Standards adopted by the New York State Education Department. Algebra 1 is associated with high school content standards within four conceptual categories: Numbers & Quantity, Algebra, Functions, and Statistics and Probability. In each category students will develop skill sets by:

- Making sense of problems and persevere in solving them.
- Reasoning abstractly and quantitatively.
- Constructing viable arguments and critiquing the reasoning of others.
- Modeling with mathematics.
- Using appropriate tools strategically.
- Attending to precision.
- Looking for and making use of structure.
- Looking for and expressing regularity in repeated reasoning.

This course ends with the required New York State Regents Algebra 1 examination.

**Algebra 1B** 20 Weeks 1 unit 9
Prerequisite: Grade 8 mathematics

This course has been aligned to the New York State Next Generation Mathematics Learning Standards adopted by the New York State Education Department. Students will continue to study the Standards listed in the Part 1 course. The content will be spiraled and built upon in this course and success in Part 1 will enhance but not preclude the ability to be successful in Part 2. This course ends with a required New York State Regents Exam.

**Topics in Algebra** 40 Weeks 1 unit 10, 11, 12
Prerequisite: Passed Algebra course but failed Regents exam

This course will be offered to students who have earned credit for Algebra 1 but have not passed the Algebra 1 Regents exam. Students will concentrate on strengthening the skills and concepts necessary to successfully pass the Algebra 1 Regents exam.

**Mathematics Course Descriptions - continued:**

**Geometry** 40 Weeks 1 unit 10, 11, 12
Prerequisite: Passing the Algebra 1 course and Regents exam. (Recommended for students with a score of 75 or better)

This course has been aligned to the New York State Next Generation Mathematics Learning Standards adopted by the New York State Education Department. Geometry is intended to be the second course in mathematics for high school students. This course ends with a required Regents exam. Students will explore and prove congruence and similarity of geometric figures. Integrating synthetic, transformational and coordinate approaches to geometry, students will justify geometric relationships and properties of geometric figures. Student will use the traditional tools of compass and straightedge as well as dynamic geometry software to assist in their investigations. This course is meant to lead students to an understanding that reasoning and proof are fundamental aspects of mathematics. If a student is seeking a Regents Diploma with Advanced Designation, the state requires passing the Geometry Regents exam as one of the three required math exams.

**Geometry with Proof** 40 Week 1 unit 10, 11
Prerequisite: Passing Algebra 1 course and Regents exam (Recommended for students with a score below 75)

This course will provide students with the opportunity to visualize and apply geometric concepts. The projects and coursework will help students discover the importance of geometry in architecture, sports, art, construction and indirect measurement techniques. Logic will be used to support students' ability to develop formal and informal proofs throughout the course. This course will also prepare students for the SAT and college placement exams.

**Geometry/Enriched** 40 Weeks 1 unit 9, 10
Prerequisite: Passing the Algebra 1 Regents exam with a 85 or better.
Weighting: This course is weighted by a factor of 1.05.

This course has been aligned to the New York State Next Generation Mathematics Learning Standards adopted by the New York State Education Department. This course will cover all of the topics of the New York State Geometry course and several of the topics will be explored in depth. This rigorous course will help students who are interested in pursuing advanced placement courses during their high school career. This course ends with a required New York State Regents exam.

**Mathematics Course Descriptions - continued:**

**Algebra 2** 40 Weeks 1 unit 11, 12
Prerequisite: Passing the Geometry course and/or Regents exam. (recommended for students with a score of 80 or better)

This course has been aligned to the New York State Next Generation Mathematics Learning Standards adopted by the New York State Education Department. This course is the capstone course of the three units of credit required for a Regents diploma with advanced designation. Within this course, the number system will be extended to include the imaginary and complex numbers. The families of functions to be studied will include polynomial, absolute value, radical, trigonometric, exponential and logarithmic functions. Other topics of study include data analysis, probability, regression, arithmetic and geometric sequences, binomial probability, right triangle trigonometry that includes circular functions and trigonometric identities. This course ends with a required New York State Regents exam.

**Intermediate Algebra /Trigonometry** 40 Weeks 1 unit 11, 12
Prerequisite: Passing one of the Geometry courses

This course can be viewed as a passport to higher level mathematics. Students will work with manipulating various functions (linear, quadratic, polynomial, exponential, logarithmic, trigonometric) and applying them to real life situations. For example, students will study the math behind motion in sports, tidal waves, earthquakes and rollercoasters. This course will also prepare students for the SAT and college placement exams.

**Algebra 2 – Enriched** 40 Weeks 1 unit 10, 11
Prerequisite: Passing the Geometry Regents exam with an 85 or better.
Weighting: This course is weighted by a factor of 1.05.

This course has been aligned to the New York State Next Generation Mathematics Learning Standards adopted by the New York State Education Department. This course will cover all of the topics of the New York State Algebra 2 course and several of the topics will be explored in depth. This rigorous course will help students who are interested in pursuing advanced placement courses during their high school career. This course ends with a required New York State Regents exam.

**Calc-Prep** 40 weeks 1 unit 11, 12
Prerequisite: Passing the Algebra 2 course and Regents exam.
There is no weighting for this course

This course includes work in polynomial and rational functions, complex numbers, trigonometry, conics, and introduction to limits and continuity. The focus in trigonometry is on radians and working without a calculator. The completion of this course prepares students for AP Calculus AB or for Statistics.

**Mathematics Course Descriptions - continued:**

**Math 12 - Foundations in College Math** 40 Weeks 1 unit 11, 12
Prerequisite: Completing Algebra 2 (passing Regents not required) or Int. Algebra/ Trigonometry

This course is offered for students who have struggled with the Regents sequence and are not prepared for the rigor of a Calc-Prep course. The approach of this course uses functions with the content based in real-world contexts. Guided discovery learning is implemented with the expectation of student understanding as opposed to student memorization and the use of the graphing calculator is required. The concept of function and function behaviors are presented in a discovery format and are later applied to teach more traditional algebra topics at a college level.

**Advanced Placement Calculus AB** 20 Weeks every day 12
20 Weeks every other day 1.5 units

Prerequisite: Passing Calc-Prep Math with an 80 or better.
Weighting: This course in weighted by a factor of 1.10

The topics of this course include analytic geometry, differentiation and integration on algebraic, logarithmic, trigonometric and exponential functions with applications. Use of graphing calculator is mandatory. The Advanced Placement Examination of the College Board is a part of this course. Students are responsible for the AP exam fee (currently $89). Based on the exam score, a student may be eligible to receive college credits. It is the responsibility of the student to consult with potential colleges/universities regarding their policy for accepting AP credits.

**Advanced Placement Calculus BC** 20 Weeks every day 12
20 Weeks every other day 1.5 units

Prerequisite: Passing Calc-Prep/ Enriched Math or 95 or better in Calc prep
Weighting: This course in weighted by a factor of 1.10

The Calculus BC course is designed to represent college-level mathematics and is considerably more extensive than the Calculus AB course. The full year course includes the calculus functions, with such topics as sequences, series, parametric and polar equations, integration by parts and many other topics not studied in the AB course. The use of a graphing calculator is mandatory. The Advanced Placement examination of the College Board is part of this course. Students taking the BC exam will be given the AB test grade along with their BC grade. Students are responsible for the AP exam fee (currently $89). Based on the exam score, a student may be eligible to receive college credits. It is the responsibility of the student to consult with potential colleges/universities regarding their policy for accepting AP credits.

**Mathematics Course Descriptions - continued:**

**Introduction to Statistics** 40 Weeks 1 unit 12
Prerequisite: Passing Algebra 2 course & Regents exam. GPA $\geq$ 85
Weighting: This course is weighted by a factor of 1.10

This course will introduce the student to the basics of statistics. Topics covered will include: the nature of data, graphical representation of data, calculation of basic descriptive statistics, the normal distribution and confidence intervals. The basics of probability theory will also be covered. The course will extensively utilize technology through the use of personal computer applications. Upon successful completion students are able to earn 3 college credits (approximately $40 per credit) through SUNY Orange as long as they meet the SUNY Orange requirements.

**College Algebra** 20 Weeks 1unit 11, 12
Prerequisite: Passing the Algebra 2 Regents with at least an 85 and the Algebra 2 course with at least a 90 average. Weighting: This course is weighted by a factor of 1.10

College Algebra is the first course for students who plan to continue on toward the study of Calculus. Topics include a thorough treatment of the concept of functions and their graphs, linear and quadratic functions, polynomial and rational functions, inverse functions, exponential and logarithmic functions and conic sections. Upon successful completion students are able to earn 3 college credits through SUNY Orange as long as they meet the SUNY Orange requirements.

**College Trigonometry** 20 Weeks 1unit 11, 12
Prerequisite: Passing the Algebra 2 Regents with at least an 85 and the Algebra 2 course with at least a 90 average. Weighting: This course is weighted by a factor of 1.10.

College Trigonometry is the second course for students who plan to continue on toward the study of Calculus. Topics include trigonometric functions, graphing techniques, right triangle applications, trigonometric identities, inverse functions, and oblique triangles. Upon successful completion students are able to earn 3 college credits through SUNY Orange as long as they meet the SUNY Orange requirements.

## SCIENCE DEPARTMENT

Course Offerings:

| | | | |
|---|---|---|---|
| **Elements of Earth Science** | 40 weeks | 1 unit | 10, 11, 12 |
| **Earth & Space Science** | 40 weeks | 1 unit | 10 |
| **Earth & Space Science Enriched** | 40 weeks | 1 unit | 9 or 10 |
| **Life Science Biology** | 40 weeks | 1 unit | 9 |
| **Physical Setting: Chemistry** | 40 weeks | 1 unit | 11, 12 |
| **Physical Setting: Chemistry Enriched** | 40 weeks | 1 unit | 10 or 11 |
| **Applied Physics** | 40 weeks | 1 unit | 11, 12 |
| **Physical Setting: Physics** | 40 weeks | 1 unit | 11, 12 |
| **Environmental Science 1** | 20 weeks | ½ unit | 11, 12 |
| **Environmental Science 2** | 20 weeks | ½ unit | 11, 12 |
| **Environmental Chemistry 1** | 20 weeks | ½ unit | 11, 12 |
| **Environmental Chemistry 2** | 20 weeks | ½ unit | 11, 12 |
| **Marine Biology & Oceanography 1** | 20 weeks | ½ unit | 11, 12 |
| **Marine Biology & Oceanography 2** | 20 weeks | ½ unit | 11, 12 |
| **College Biology** | 40 weeks | 1.5 units | 11, 12 |
| **AP Physics *** | 40 weeks | 1.5 units | 11, 12 |
| **AP Environmental Science*** | 40 weeks | 1.5 units | 11, 12 |
| **AP Chemistry *** | 40 weeks | 1.5 units | 11, 12 |
| **SUPA Forensic Science **** | 40 weeks | 1 unit | 12 |
| **SUPA Introduction to Scientific Research **** | 40 weeks | 1 unit | 10, 11, 12 |
| **SUPA Process of Scientific Research **** | 40 weeks | 1 unit | 11, 12 |
| **SUPA Results of Scientific Research **** | 40 weeks | 1 unit | 12 |

* The Advanced Placement Exam of the College Board is required after completion of this course. Fees apply. Financial assistance is available for those that meet College Board guidelines.

** College fees apply

**Science Course Descriptions:**

**Elements of Earth Science** 40 Weeks 1 unit 10,11,12
Prerequisite: Passed Living Environment Regents, but Living Environment class average is 70 or below.

Practical Earth Science will serve as a fundamental study into Geology, Meteorology, and Astronomy. While meeting the same curriculum standards as Regents Earth Science, there will be a heavier focus on applied knowledge, as opposed to Regents Exam preparation. This course will teach students about the physical world around them, as well as practical and useful skills that they will utilize throughout their lives. This course is designed to meet the standards of the NYS Physical Science requirements and will culminate in a local final exam or capstone project.

**Earth & Space Science Regents** 40 Weeks 1 unit 10
**Earth & Space Science ENR**
Prerequisite: Passed Living Environment and earned a 65 or better on the Living Environment Regents.

The New York State Science Learning Standards (NYSSLS) Earth and Space Science curriculum is a laboratory-based program focusing on Earth's systems, history, and place in the universe. It emphasizes three-dimensional learning—combining Disciplinary Core Ideas, Science/Engineering Practices, and Crosscutting Concepts—to explore topics like plate tectonics, climate, and astronomy. Key components of the NYSSLS Earth and Space Science course include:

**Core Topics:** The curriculum covers Space Systems, History of the Earth, Earth's Systems (geosphere, hydrosphere, atmosphere, biosphere), Weather and Climate, and Human Sustainability.
**Laboratory Requirement:** Students must complete 1,200 minutes of hands-on laboratory investigations, including mandatory state-required labs, to be eligible for the Regents exam.
**Scientific Approach:** The course focuses on interpreting data, modeling, and using evidence to explain phenomena, such as the impact of human activity on the environment or energy transfer in the solar system.
**Regents Exam:** The course culminates in the Earth and Space Sciences Regents Examination, which aligns with the updated standards.

The curriculum aims to build a deep understanding of the dynamic processes of change on Earth and in space, often utilizing phenomenon-based learning to engage students in scientific inquiry.

**Science Course Descriptions – continued:**

**Life Science Biology** 40 Weeks 1 unit 9
Prerequisite: None

The New York State Science Learning Standards (NYSSLS) for Biology (often termed Living Environment) is a high school course focused on inquiry-based learning, covering topics from molecular biology to ecosystems. It emphasizes student investigation, requiring 1,200 laboratory minutes. Key areas include cellular structure, genetics, evolution, and human impact on the environment. Key aspects of the NYSSLS Biology curriculum include:

**Core Topics:** The curriculum covers biochemistry, cells, genetics, evolution, reproduction, development, and ecology.
**Key Themes:** Studies focus on how organisms maintain homeostasis, the continuity of life, and the interaction of life forms in ecosystems.
**Performance Expectations:** Students must demonstrate understanding of carbon-based molecule formation, cellular respiration, energy transfer, and the impact of human activity on biodiversity.
**Laboratory Requirement:** Students must complete at least 1,200 minutes of laboratory experiences to be eligible for the Regents exam.
**Regents Exam:** The course culminates in the Biology Regents Examination, which aligns with the updated standards.

The standards are designed to foster critical thinking, requiring students to analyze data, build models, and explain scientific principles.

**Physical Setting: Chemistry** 40 Weeks 1 unit 11, 12
Prerequisite: Passing Algebra 1 and passed the Algebra 1 and Earth Science Regents with a 65 or higher.

This course follows the New York State core curriculum in Physical Setting: Chemistry consisting of a rigorous presentation of basic chemical principles. During the laboratory period, students experience the use of common laboratory chemicals and equipment in both inquiry based and verification experiences. A minimum of 1200 laboratory minutes with approved laboratory reports must be completed to be admitted to the Regents exam for this course. All students are required to take the Regents exam at the end of the course.

**Science Course Descriptions – continued:**

**Physical Setting: Chemistry/Enriched** 40 Weeks 1 unit 10 or 11
Prerequisite: Final average of 85 or better in Living Environment and a regents score of 85 or better in Algebra 1 and Earth Science.
Weighting: This course is weighted by a factor of 1.05

This course contains the full content of the New York State core curriculum in Physical Setting: Chemistry (including all extended areas). The content is skills and applications based with an emphasis on the theory behind the principles. The students will be expected to use reasoning to interpret information and make inferences from learned chemical principles. Students are expected to be able to manipulate algebraic equations and have an understanding of fundamental number concepts. A minimum of 1200 laboratory minutes with approved laboratory reports must be completed to be admitted to the Regents exam for this course. All students are required to take the Regents exam at the end of the course.

**Applied Physics** 40 Weeks 1 unit 11. 12
Prerequisite: Passed Algebra 1 and Algebra 1 Regents, as well as one Regents level science.

Applied Physics is a non-standardized physics course designed for students to learn about Physics concepts and principles that exist in the world around us and in their everyday lives. Students will learn about a variety of topics, such as kinematics, dynamics, Newton's laws of motion, circular motion and many others as well. Students will be able to analyze these concepts in different activities such as sports, machinery, human physicality and other physical systems. This course comes with no scheduled lab periods and is assessed locally based on topics covered in class. A majority of the assessments will be project-based and hands-on activities. Applied Physics is less intensive when it comes to mathematics than Regents level courses. Students will learn about a variety of physics topics by creating and performing experiments and investigations designed to represent the different physics concepts that make the world around us work

**Physical Setting: Physics** 40 Weeks 1 unit 11, 12
Prerequisite: Passed Algebra II and the Algebra II Regents.

The course follows the New York State Syllabus in Physical Setting: Physics consisting of a rigorous presentation of basic principles of physics. The major areas of concentration are mechanics, wave phenomena, electricity, magnetism and modern physics. A minimum of 1200 laboratory minutes with approved laboratory reports must be completed to be admitted to the Regents exam for this course. All students are required to take the Regents exam at the end of the course.

**Science Course Descriptions – continued:**

**Environmental Science 1** 20 weeks 1/2 unit 11, 12
Prerequisite: Successful completion of Living Environment and a Physical Science

General Environmental Science 1 introduces students to the foundational concepts of environmental science, focusing on the relationships between living organisms and their environments. This course covers topics in ecology, ecosystems, and population dynamics, allowing students to explore how different species interact with each other and their surroundings. Students will learn about adaptations, evolution, and the factors influencing biodiversity. Through hands-on experiments, research projects, and critical thinking exercises, students will engage in understanding real-world environmental issues such as pollution, resource use, and sustainability. The course emphasizes problem-based learning with a flipped classroom approach, where students will gather data, conduct experiments, and apply scientific methods to explore key concepts. Active participation and a focus on writing and data analysis will be essential as students dive deeper into environmental challenges.

**Environmental Science 2** 20 weeks 1/2 unit 11, 12
Prerequisites: Successful completion of Living Environment and a Physical Science

General Environmental Science 2 builds on the concepts learned in the GES1, delving into more complex environmental issues and their global impacts. Students will explore topics like energy resources and consumption, land and water use, and the science behind global change. In addition, the course will cover the political, ethical, and social aspects of environmental science, including the role of policy and human decisions in shaping environmental outcomes. Students will analyze the causes and consequences of major environmental problems, such as air and water pollution, population growth, and resource depletion. The course will continue to focus on hands-on, project-based learning, with students participating in research and data collection that directly ties to the environmental topics being studied. Critical thinking, writing, and problem-solving skills will be strengthened, as students work towards understanding how they can contribute to sustainable solutions for the future.

**Environmental Chemistry 1** 20 weeks 1/2 unit 11, 12
Prerequisite: Successful completion of Living Environment and a Physical Science

Environmental Chemistry 1 introduces students to the basics of chemistry in a way that connects to everyday life and the environment. Instead of focusing on complex equations or challenging theories, this course explores how common substances like air, water, and soil are affected by pollution, waste, and human activities. Students will learn about topics such as air and water quality, the importance of recycling, and simple chemical cycles in nature. Activities and hands-on experiments help bring the content to life, encouraging students to think about how they can make positive changes for the planet. This course is designed to be approachable and relatable, showing students how chemistry plays a role in the world around them.

**Science Course Descriptions – continued:**

**Environmental Chemistry 2** 20 weeks 1/2 unit 11, 12
Prerequisite: Successful completion of Living Environment and a Physical Science

Environmental Chemistry 2 builds on the ideas from EC1, focusing on practical ways that chemistry can be used to tackle environmental issues. Students will explore topics like energy sources, climate change, and waste management, all with a focus on real-world applications and solutions. The course is designed to be accessible and interactive, with simple labs and projects that allow students to understand the basics of how energy and materials are used—and what we can do to reduce waste and pollution. This course is ideal for students who want a hands-on approach to learning about the environment, with no previous chemistry knowledge required.

**Marine Biology and Oceanography 1** 20 weeks 1/2 unit 11, 12
Prerequisite: Successful completion of Living Environment and a Physical Science

Introduction to Marine Biology and Oceanography 1 takes students on an exploration of life in the ocean and the features of marine environments. This course is designed to make marine science accessible and engaging, focusing on fascinating ocean animals, underwater ecosystems, and the physical characteristics of oceans. Students will learn about different marine habitats, the ocean's role in supporting life on Earth, and how ocean currents and tides work. Through videos, hands-on activities, and interactive projects, students will get a chance to explore life beneath the waves and think about how we can protect ocean ecosystems. This course is approachable and hands-on, with no prior science knowledge required, making it a great starting point for students interested in the ocean.

**Marine Biology and Oceanography 2** 20 weeks 1/2 unit 11, 12
Prerequisite: Successful completion of Living Environment and a Physical Science

Introduction to Marine Biology and Oceanography 2 builds on the basics covered in MB1, taking a closer look at marine organisms and how they interact with their environments. This course explores topics like coral reefs, food webs, ocean resources, and the impact of human activities on marine life. Through projects, simple experiments, and real-world examples, students learn about ocean conservation and the importance of healthy seas for both animals and people. Designed to be relatable and hands-on, this course encourages students to think about ways to protect the ocean and its inhabitants. No advanced science background is needed—just an interest in learning more about the wonders of the marine world.

**CCHS General Biology 101 and 102** 20 Weeks every day 1 unit 11, 12
20 Weeks alternate days 0.5 units

Prerequisite: Successful completion of the three state mathematics courses and two Regents science courses. Living Environment Regents grade of 85 or better. Students must be concurrently enrolled in Chemistry Regents course or have completed it prior to this course.

Weighting: This course is weighted by a factor of 1.10

This eight credit college course via CCHS at SUNY Orange is a study of structure and function of biological molecules and the cell. The transformation of energy through the enzyme-regulated chemical reactions of cellular respiration and photosynthesis. As well as the mechanisms and regulation of cellular reproduction, meiosis, inheritance and Mendelian genetics, protein synthesis and gene regulation. A study of plant and animal organisms, emphasizing the vertebrate animal and the flowering plant. The relationships between organisms and the environment are also covered. Topics include evolution and natural selection of plants and animals. Human anatomy and physiology in terms of homeostasis. Several dissections cover the digestive, cardiovascular and musculoskeletal systems. Student will apply the scientific method to answer a biological question by making observations, developing hypotheses, designing experiments, making measurements and collecting data, employing several mathematical skills.

These two courses joined together offer the equivalent of the former Advanced Placement Biology course. Upon successful completion of these courses, students will earn eight credits through SUNY Orange (approximately $39 per credit). Lab hours are included in the course work. Semester grades are reported to SUNY Orange and appear on college transcripts as college transfer credits.

**AP Physics 1 Algebra Based** 20 Weeks everyday 1 unit 11, 12
20 Weeks alternate days 0.5 units

Prerequisite: Successful completion of the three state mathematics courses offered and two Regents science courses. Students need to be concurrently enrolled in Calculus Prep Math or higher.

Weighting: This course is weighted by a factor of 1.10

AP Physics is an algebra based, introductory college-level Physics course. Students cultivate their understanding of Physics through inquiry-based investigations as they explore a variety of topics including: Kinematics, Dynamics, Circular Motion & Gravitation, Energy, Momentum, Simple Harmonic Motion and Torque & Rotational Motion

**Science Course Descriptions – continued:**

**AP Environmental Science** 20 Weeks everyday 1 unit 11, 12
20 Weeks alternate days 0.5 units

Prerequisite: Successful completion of Algebra and both Physical Setting: Earth Science and Living Environment: Biology and either Physical Setting: Chemistry or Environmental Chemistry
Weighting: This course is weighted by a factor of 1.10

The goal of this course is to provide students with the scientific principles, concepts and methodologies required to understand the interrelationships of the natural world. Students will identify and analyze environmental problems both natural and man-made, evaluate the relative risks associated with these problems and examine alternative solutions for resolving and/or preventing them. The course focus is on the 'real science' behind the environmental problems and issues. Laboratory and field study are an important element of the course. The final grade will be based upon the average of each marking period, a mid-term exam, a final laboratory average and a final grade.
Each student will be prepared for the Advanced Placement Examination of the College Board which will be given in May. Students are responsible for the AP exam fee (currently $88). Based on the exam score, a student may be eligible to receive college credits. It is the responsibility of the student to consult with potential colleges/universities regarding their policy for accepting AP credits.

**AP Chemistry** 20 weeks everyday 1 unit 11, 12
20 weeks alternate days 0.5 units

Prerequisite: A final average of 90 or better in Regents Chemistry and a final average of 90 or better in Algebra 2

The AP Chemistry course provides students with a college-level foundation to support future advanced coursework in chemistry. Students cultivate their understanding of chemistry through inquiry-based investigations, as they explore content such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium. Each student will be prepared for the Advanced Placement Examination of the College Board which will be given in May. Students are responsible for the AP exam fee (currently $88). Based on the exam score, a student may be eligible to receive college credits. It is the responsibility of the student to consult with potential colleges/universities regarding their policy for accepting AP credits.

**Science Course Descriptions – continued:**

**SUPA Forensic Science** 40 Weeks 1 unit 12

Prerequisite: Successful completion of Algebra and both Physical Setting: Earth Science and Living Environment: Biology and either Physical Setting: Chemistry or Environmental Chemistry

Weighting: This course is weighted by a factor of 1.10

Forensic Science is a one semester course taught at Syracuse University which is available to seniors in the Washingtonville High School. High school students will be able to receive college credit after successful completion of course and paying Syracuse's reduced tuition fees ($115 per credit payable to Syracuse University). This course focuses upon the application of scientific methods and techniques to crime and law. This course is intended to provide an introduction to understanding the science behind crime detection. Scientific methods specifically relevant to crime detection and analysis will be presented with emphasis placed upon the techniques used in evaluating physical evidence. Topics include blood analysis, organic and inorganic evidence analysis, microscope investigation, hair analysis, DNA, drug chemistry and toxicology, fiber comparisons, paints, glass compositions and fragmentation, fingerprints, soil comparisons, arson investigation and other topics. Laboratory exercises will include techniques commonly employed in forensic investigations.

**Science Course Descriptions – continued:**

**Introduction to Scientific Research** 40 weeks every other 10,11,12
Prerequisite: Successful completion of Living Environment and/or Earth Science

The program involves a multi-year approach, with each year focused upon the exploration of different aspects of scientific inquiry and discovery. University credit (URP 150/250) is provided for students who have successfully completed the first year of the program and are enrolled in a second and third year (4 credits per year). Students will typically begin the program in their sophomore years. Each year of the program is focused upon different broad themes in exploring scientific research. These themes progress from an in-depth examination of the scientific method itself through the completion of a significant research experience for the student. These themes may be considered as exploring the "basic tools of scientific research and discovery", the "process of scientific research" and the "results of scientific research".

**Learning Goals:**

The fundamental goal of the program is to encourage students to encounter scientific disciplines in a first-hand fashion through both a deeper exploration of the fundamental process of science discovery itself and through carefully guided research projects in which they are full participants. Specific goals of the program include:

- To Identify and foster talented, interested and motivated students focused on science research leading to science-based careers;
- To provide students an accurate and detailed understanding of what constitutes high-quality research and how to distinguish this from pseudoscientific work;
- To provide students with the basic tools required to conduct research such as:
- An ability to read, understand and discuss work reported in the primary scientific literature;
- An understanding of how to frame an important scientific question into a testable hypothesis;
- An ability to design and evaluate an experimental research plan to test a hypothesis;
- An ability to work effectively as part of a team in problem-solving;
- A basic understanding of statistical methods for research;
- To provide opportunities for students to design, develop, execute, complete, and communicate high-quality research projects;
- To promote independent and critical thinking;
- To provide College credit for science research work.

The typical program consists of several years of involvement (optionally starting in the sophomore high school year) such as:

**Year 1 (Typically sophomore year):**
**"Basic Tools of Scientific Research and Discovery"**. *Basic Concepts*: what is scientific research, what is the scientific method, understanding basic research tools, discerning real science v. pseudoscience, how to pose a valid scientific question, how to read critically a scientific paper, how a research paper is constructed, development of student communication and presentation skills (talks, posters, etc.), how to collect data and keep an appropriate notebook/journal, understanding the stylistic

**Science Course Descriptions – continued:**

considerations of scientific communication (e.g., citations, paper sections and format, etc.), fundamentals of basic statistical analysis, and others.

**Year 2 (Typically junior year):**

**SUPA Science Research 1** *Basic Concepts*: How to define, develop and refine a detailed scientific research project, how to complete background literature searching, how to prepare a research proposal with a plan of investigation, how to identify/locate a mentor or research instructor (extramural or intramural), how a research project is begun and continues in experimental work. Some students may profitably identify their mentors early in this process. Four college credits from Syracuse University are offered at $115.00 per credit hour.

**As a result, students are expected to**:

- Identify a research project and prepare a detailed plan for execution;
- Gain experience presenting, both orally and in writing;
- Gain experience presenting critical reviews of papers in the scientific literature relevant to the research;
- Conduct hands-on research experimentation.

**Year 3 (Typically senior year)**:

**SUPA Science Research 2** *Basic Concepts*: continuing a project towards completion of the research experimentation and evolution of project, how to compile, analyze and interpret data from experiments, how to write up research in standard scientific format (depends on field but consistent with papers published in the field), and how to present research at symposium or similar meeting. Four college credits from Syracuse University are offered at $115.00 per credit hour.

**As a result, students are expected to**:

- Complete a significant research project including the collection, analysis and interpretation of primary experimental data;
- Present project in a public forum;
- Prepare a manuscript in a fashion suitable for publication in a journal appropriate to their field of inquiry.

## WORLD LANGUAGES DEPARTMENT

Course Offerings:

| | | |
|---|---|---|
| French 1 | 40 weeks 1 unit | 9, 10, 11, 12 |
| French 2 | 40 weeks 1 unit | 9, 10, 11, 12 |
| French 3 | 40 weeks 1 unit | 9, 10, 11, 12 |
| Advanced French Grammar/French 4 | 40 weeks 1 unit | 11, 12 |
| Spanish 1 | 40 weeks 1 unit | 9, 10, 11, 12 |
| Spanish 2 | 40 weeks 1 unit | 9, 10, 11, 12 |
| Spanish 3 | 40 weeks 1 unit | 9, 10, 11, 12 |
| Advanced Spanish Grammar/Spanish 4 | 40 weeks 1 unit | 11, 12 |
| Spanish 5 | 40 weeks 1 unit | 11, 12 |
| Spanish for Native/Heritage Speakers I | 40 weeks 1 unit | 9, 10, 11, 12 |
| Spanish for Native/Heritage Speakers II | 40 weeks 1 unit | 10, 11, 12 |

**World Languages Course Descriptions:**

**French 1** 40 weeks 1 unit 9, 10, 11, 12
Prerequisite: None (French 1 is only offered at the Middle School level)

This course is open to students in grades 9-12. Level I French is the beginning of practical control of the four language skills (understanding, speaking, reading and writing). The course is an introduction to the knowledge of the fundamentals of French structure in a communicative context, as well as French culture. Pronunciation and vocabulary habits are developed so that by the end of the year the student will be able to have and understand LIMITED conversation in French. One credit of World Language is a minimum graduation requirement unless exempt by the CSE.

**French 2** 40 weeks 1 unit 9, 10, 11, 12
Prerequisite: Successful Completion of Level I French

This course is open to students in grades 9-12. Level II French concentrates on the use of the French language to approach real language behavior. The course consists of reconfirming familiarity with structures and vocabulary in a communicative context, as well as expanding these areas of language development. Oral competence and reading skills are maintained and further developed. Writing skills are progressively developed, plus cultural awareness. By the end of the course, students should be able to have and understand a basic conversation in French, usually based on the NYS World Language Themes and Topics.

**French 3** 40 weeks 1 unit 9, 10, 11, 12
Prerequisite: Successful Completion of Level II French

This course is open to students in grades 9-12. Level III French is an intense review of the skills acquired in Level I and II with an emphasis on structure, vocabulary, and free conversational expression. The student will learn to think and express himself in French. Communication skills and cultural insights will be discovered. A cultivation of self-awareness - what we are, how we are unique, and yet alike - will be discussed. The New York State Regents examination equivalent will be administered at the end of the course. The four skills of language acquisition will be tested: listening comprehension, reading, writing, and speaking in French.

## World Languages Course Descriptions:

**Advanced French Grammar/French 4** 40 weeks 1 unit 11, 12
Prerequisite: Successful Completion of Level III French with a minimum of an 85. This course is weighted by a factor of 1.10.

Advanced French Grammar will continue the four-skill approach of listening, speaking, reading and writing. Students will be provided abundant opportunity for oral practice; they will be asked to talk about themselves, their interests, feelings, and activities, or to role-play real-life situations they are likely to share with French speaking persons both at home and abroad. Activities and exercises are designed to lead to the conscious control of the French language. The course is part of the University in the High School program through SUNY Albany. Four college credits may be earned and a tuition fee is charged for the college credits. The current tuition fee is approximately $210.00.

**Spanish 1** 40 weeks 1 unit 9, 10, 11, 12
Prerequisite: None

This course is open to students in grades 9-12. Level I Spanish is the beginning of practical control of the four language skills (understanding, speaking, reading and writing). The course is an introduction to knowledge of the fundamentals of Spanish structure in a communicative context, as well as Spanish culture. Pronunciation and vocabulary habits are developed so that by the end of the year the student will be able to have and understand LIMITED conversation in Spanish. One credit of World Language is a minimum graduation requirement unless exempt by the CSE.

**World Languages Course Descriptions – continued:**

**Spanish 2** 40 weeks 1 unit 9, 10, 11, 12
Prerequisite: Successful Completion of Level I Spanish

This course is open to students in grades 9-12. Level II Spanish concentrates on the use of the Spanish language to approach real language behavior. The course consists of reconfirming familiarity with structures and vocabulary in a communicative context, as well as expanding these areas of language development. Oral competence and reading skills are maintained and further developed. Writing skills are progressively developed, plus cultural awareness. By the end of the course students should be able to have and understand a basic conversation in Spanish, usually based on the NYS World Language Themes and Topics.

**Spanish 3** 40 weeks 1 unit 9, 10, 11, 12
Prerequisite: Successful Completion of Level II Spanish

This course is open to students in grades 9-12. Level III Spanish is an intense review of the skills acquired in Level I and II with an emphasis on structure, vocabulary and free conversational expression. The student will learn to think and express themselves in Spanish. Communication skills and cultural insights will be discovered. The pleasure of reading in a world language will be discovered. A cultivation of self-awareness - what we are, how we are unique, and yet alike - will be discussed. The Checkpoint B exam that replicates past New York State Regents examinations will be administered at the end of this course. The four skills of language acquisition will be tested: listening comprehension, reading, writing, and speaking in the world language.

**Advanced Spanish Grammar/Spanish 4** 40 weeks 1 unit 11, 12
Prerequisite: Successful Completion of Level III Spanish with a minimum grade of an 85. This course will receive a weighting of 1.10

This course is designed to continue the development of the student's ability to communicate in the language through a four-skill approach of listening, speaking, reading, and writing. The sequence includes a review and further study of pronunciation, grammar, and vocabulary. The course builds on pre-existing vocabulary and grammar and stresses communication through exposure to authentic materials and in-depth grammar review. Materials concerned with culture, civilization, literature, contemporary issues, and everyday situations constitute the subject matter for communication. Classroom discussion revolves around readings that reflect the culture of Spain, Latin America, and Latinos in the U.S. Classics of Spanish and Latin America Literature, including short stories, poetry and plays will be explored.

This course is part of the University in the High School program through SUNY Albany. Upon successful completion, students will be eligible to receive four college credits. If the course is taken for credit, a fee (the current tuition fee is approximately $210.00) will be paid directly to SUNY Albany.

**World Languages Course Descriptions – continued:**

**Spanish 5** 40 weeks 1 unit 11, 12
Prerequisite: Successful Completion of Advanced Spanish Grammar and Teacher Recommendation.
This course is weighted by a factor of 1.10

Language proficiency in the four areas of pedagogical skills will be emphasized. The emphasis will be grammar and reading. The course is part of the University in the High School program through SUNY Albany. Four college credits may be earned. The current tuition fee is approximately $210.00.

**Spanish for Native/Heritage Speakers I** 40 weeks 1 unit 9, 10, 11, 12

This course is designed for native Spanish speakers who have recently arrived in this country and have been educated in Spanish in their native country or heritage Spanish speakers – those whose families speak Spanish, and who have some foundational communication skills in the language. Building on a foundation of strong oral fluency, the course aims to deepen students' understanding of Spanish through the exploration of more complex grammatical structures, advanced vocabulary, and cultural themes.

**Spanish for Native/Heritage Speakers II** 40 weeks 1 unit 10, 11, 12
Prerequisite: Successful completion of Native/Heritage Speakers I

This course is designed to review the communication skills learned in Spanish for Native/Heritage Speaker I with greater emphasis on developing literacy. This course is focused on improving the students' ability to write (narrative, expository and journal writing) and read in Spanish. Student's understanding, appreciation, and respect for the culture will be further developed. The course culminates in a Spanish Local Comprehensive Exam for Regents credit. This course is conducted exclusively in Spanish and is designed for heritage or native speakers only.

# BUSINESS EDUCATION

Course Offerings:

| | | |
|---|---|---|
| Career and Financial Management | 40 weeks 1 unit | 10, 11, 12 |
| Financial Accounting | 40 weeks 1 unit | 11, 12 |
| Business Law | 40 weeks 1 unit | 11, 12 |
| Computer Applications | 20 weeks 1/2 unit | 9, 10, 11, 12 |
| Principles of Marketing | 40 weeks 1 unit | 11, 12 |
| Work Based Learning | 1/2 or 1 unit | 11, 12 |
| Introduction to Business | 20 weeks 1/2 unit | 11, 12 |

**Business Education Course Descriptions:**

**Career and Financial Management** 40 weeks 1 unit 10, 11, 12
Prerequisite: None

This course is designed to give a real-world emphasis on real-world situations and applications. It focuses on the student's role as a citizen, and consumer and active member in the business world. It examines career decisions including work laws and responsibilities. The money management section of the course is designed to introduce the students to pay, benefits, working conditions, federal income tax, budgets, financial records, and checking accounts. Next, the students will explore financial security by examining savings, and explore investing in stocks, bonds, mutual funds and real estate. Students will examine the world of credit; records, laws, responsibilities and costs. The decision-making process will be studied, along with the decision to rent/buy a home and/or car. Finally, students will develop an understanding of consumer rights and responsibilities including consumer protection and dispute resolution.

**Financial Accounting** 40 weeks 1 unit 11, 12
Prerequisite: 85% average or permission from chairperson.
This course is weighted by a factor of 1.10

This course provides a solid foundation in basic accounting concepts and methodology of financial of financial accounting. This includes the accounting rules and procedures used by the financial accountant in preparing external financial reports. Emphasis is placed on the chart of accounts, the accounting cycle, the statement of cash flow, the income statement, and the balance sheet. This course provides the students with an understanding of financial accounting in a corporate environment, the methods used to perform analysis of the financial statements, and insights into the financial accounting decision-making process.

Students may receive high school credit or four college credits through Mount Saint Mary College upon the completion of the course. Students are responsible for all fees associated with this course. This class is open to juniors or seniors. The Mount Saint Mary College tuition for Academic Year 2026-2027 will be $80 per credit.

**Business Education Course Descriptions – continued:**

**Business Law** 40 weeks 1 unit 11, 12
Prerequisite: None

This course serves to examine the laws that affect our daily lives. The course focuses on criminal and civil law and the court systems that enforce the laws. In addition, the student will be introduced to the several elements relating to contracts including negotiation, forms, and breach. Other topics will include consumer law. Renting or owning a home, money and the law, credit and debt. Students will examine laws in the workplace and laws involved in starting a business.

**Computer Applications** 20 weeks 1/2 unit 9, 10, 11, 12
Prerequisite: None

Computer Applications is a one-semester hands-on business course designed to introduce skills required in the technology-based workplace. This includes netiquette, digital citizenship, file management, computer science topics, coding, and evaluating hardware and software. It also provides a strong foundation for utilizing Google Workspace and Microsoft 365. Thus, helping students communicate in a paperless environment by becoming familiar with word processing, spreadsheet, presentation, web design, HTML, and other cloud-based applications. At the end of the course, students are equipped with 21st Century Skills that support critical thinking, analysis, communication, problem-solving, and collaboration in school, at home, and at work.

**Principles of Marketing** 40 weeks 1 unit 11, 12
Prerequisite: None

This course is recommended for both academic and business students. It is designed to develop the basic competencies necessary for entry-level proficiency in a variety of marketing job clusters or as a basic foundation course for students planning to major in business in college. The student of marketing will progress from the operation of a business to the more complex skills within marketing research, production, distribution, retailing and promotional activities.

Recommended for students in planning on pursuing a career in business directly out of high school and those students planning on attending a two or four-year university with plans to study and area of business.

**Introduction to Business** 20 weeks 1/2 unit 11, 12
Prerequisites: SUNY Orange requires an overall GPA of 90 for Juniors and 85 for Seniors.

This analysis of current business practices examines the following topics: a comparison of economic systems, forms of ownership, small business, social responsibility, management and organization, finance and investment, marketing, human resources, and international business. Topical issues are used to reinforce terminology and concepts. (3 college credits)

**Business Education Course Descriptions – continued:**

**Work Based Learning** **½ unit or 1 unit** **11, 12**

Prerequisite: Career & Financial Management

Work-based learning (WBL) collaboratively engages employers and schools in providing structured learning experiences for students. The experiences focus on assisting students to develop broad, transferable skills for postsecondary education and the workplace. It provides students with the opportunity to apply knowledge and skills learned in the classroom to real world situations. Work site learning occurs away from school in a business or community organization.

| Work Based Learning Programs | Paid/Unpaid | Worksite Hours |
|---|---|---|
| Career Exploration Internship Program (CEIP) | Unpaid | 108 hours = 1 unit |
| Career Exploration Internship Program (CEIP) | Unpaid | 54 hours = ½ unit |
| General Exploration Internship Program (GEWEP) | Paid | 300 hours = 1 unit |
| General Exploration Internship Program (GEWEP) | Paid | 150 hours = ½ unit |

# FAMILY & CONSUMER SCIENCE

Course Offerings:

| | | |
|---|---|---|
| Food and Nutrition | 40 weeks 1 unit | 10, 11, 12 |
| Child Development and Parenting | 40 weeks 1 unit | 10, 11, 12 |

**Family & Consumer Science Course Descriptions:**

**Food and Nutrition** 40 weeks 1 unit 10, 11, 12
Prerequisite: None

Students will learn the elements of nutritional meal planning and preparation. They will also explore foods of different cultures. Through food labs and the use of government issued dietary guidelines, students will utilize basic cooking skills to successfully prepare delicious and nutritious recipes.

**Child Development and Parenting** 40 weeks 1 unit 10, 11, 12
Prerequisite: None

The majority of people in our society become parents or they may be involved in a career where they have to deal with children. This course is centered upon choices individuals must make in relation to parenting. The economics, social, educational and physical conditions which influence parenting are identified and implications explored. The physical, emotional, intellectual and social development of the infant, toddler and preschooler will be studied. Along with; daily care, guidance, discipline and other parenting/care-giver skills.

# TECHNOLOGY DEPARTMENT

Course Offerings:

| | | |
|---|---|---|
| Basic Production Systems | 40 weeks 1 unit | 10, 11, 12 |
| Basic Electronics (Electricity) | 40 weeks 1 unit | 10, 11, 12 |
| Architectural Drawing and Design | 40 weeks 1 unit | 10, 11, 12 |
| Residential Structures | 40 weeks 1 unit | 10, 11, 12 |
| Design and Drawing for Production | 40 weeks 1 unit | 10, 11, 12 |
| Video Games & Esports Production | 40 weeks 1 unit | 11, 12 |
| Basic Home Repair | 20 weeks 1/2 unit | 10, 11, 12 |

**Technology Course Descriptions:**

**Basic Production Systems** 40 weeks 1 unit 10, 11, 12
Prerequisite: None

This course is the study of the production of goods through manufacturing (factory – built) methods and processes. Students will look at how the different methods of manufacturing have impacted society, the economy, and the environment. Projects will be made in a mass production style (factory) implementing the methods and processes that they have learned. Students will be grade on the products they make along with the paperwork that accompanies it, and tests and quizzes.

**Basic Electronics (Electricity)** 40 weeks 1 unit 10, 11, 12
Prerequisite: None
This course is the study of electrical theory. Ohm's law, series and parallel circuits, AC vs. DC electricity, alternative sources of energy, residential wiring, and basic electronics, circuit schematics. Students will learn about and use several different components such as (resistors, PNP/NPN transistors, diodes, capacitors, LEDs, 555 timer chips). Robotics will also be looked at and how these circuits and components can be used to build and control them. Students will be evaluated on the completion of the modules and test / quizzes.

**Architectural Drawing and Design** 40 weeks 1 unit 10, 11, 12
Prerequisite: None

This course is a detailed study of residential/commercial structures and how they are designed, built, and function. All students will utilize the Versa-CAD computer-based drawing program to design and construct a complete set of working plans for a residential home, shopping mall and structural bridge. Students will explore the accurate and current information pertaining to building codes and requirements. This is a very exciting and popular course for all students interested in pursuing a future in engineering, architecture, drafting, and technical related fields. All work is completed in class; no homework or tests are required. Student averages are based on the required computer-generated drawings.

**Technology Course Description – continued:**

**Residential Structures** 40 weeks 1 unit 10, 11, 12
Prerequisite: None

This Couse is the study of skills and processes that are related to the construction of a residential structure. Modules include planning, materials, leveling the site, foundation layout, framing (floor/ wall/ roof), roofing, siding, and finish carpentry. Students will learn how to draw building plans and construct a scale model home. Students will be evaluated on the completion of the modules and test / quizzes.

**Design and Drawing for Production** 40 weeks 1 unit 10, 11, 12
Prerequisite: None

This course utilizes CAD "Computer Aided Drawing" to assist students in various design activity problems. Students will learn how to communicate problem solving ideas while exploring all seven constants of a design activity brief. Student work will include but, not be limited to the following: Basic Versa-CAD program applications, pictorial drawings, section and auxiliary drawings. This course may be used by any student, in any sequence to meet the one unit of Art or Music requirement for graduation. It may also be used in a Technology or Art sequence. This is a "creative and fun" course which is well suited and recommended for all pre-engineering and technical students. All work is completed in class; no homework or tests are required. Student averages are based on the required computer-generated drawings.

**Basic Home Repair** 20 weeks 1/2 unit 10, 11, 12
Prerequisite: None

This course will cover repairs that the average homeowner commonly undertakes. Hands-on learning experiences may include drywall, ceramic tile, house wiring, plumbing repairs, small engine repairs, woodworking, and cabinetry.

These experiences will expose the student to the trades, professions, and career opportunities related to maintaining and repairing all structures and systems common to daily living. Through exposure, demonstration, and hands-on experiences, the student will become a better-educated consumer, will become more self-sufficient and less dependent on the use of costly outside service providers, and will gain knowledge of the structure and various systems that need repair and maintenance.

**Technology Course Description – continued:**

**Video Games and Esports Production** 40 weeks 1 unit 11, 12
Prerequisite: 11th grade or special permission from instructor

This course introduces students to the study of video games as an interactive storytelling medium that extends outwards into a wider gaming industry and surrounding creative environment. Students will play and analyze video games while reading complementary sources in literature, games studies, cultural studies, and technology in order to explore the history and trends of our diverse and developing relationships to gaming. Not only this, but the course will also offer students the opportunity to create their own game element designs, participate in the production of esports competitive events, and engage in multi-platform public-facing content creation for our class and our school's varsity esports teams.

PLTW GDD introduces students to game design and development through Roblox Studio, a development environment with a comprehensive set of tools that empowers developers to create expansive worlds. Students will learn fundamental game design elements such as goals, rules, advancement and feedback. GDD is based on a subset of standards from the state and national game development and computer science frameworks.

Built for students interested in the diverse career possibilities afforded by gaming and esports, students will "apply" for various positions in collaborative projects in four different pathways. As students learn the language and landscape of game design, and create original works of their own, our creative teams will construct new assets and build web-based content around them. Both creating and playing games draws on a number of disciplines, such as art and animation, music and sound design, creative writing, public speaking, and more, so course projects will embrace and enhance the systems and connections between these areas.

The course will place special emphasis on accessible industry tools and strategies used by colleges and professionals in the gaming and esports world to develop innovative and compelling narratives and play experiences. No previous coding experience is necessary. *Video Games and Esports Production* puts the magic behind the screen into the hands of students.

***Digital Narrative and World Building***

Explore how interactive digital storytelling works and how to create fun, immersive player experiences

- Gaming history and technical innovations
- Critical thinking through games
- Character, player, environment, mechanics, and lore
- Introduction to interactive 3d: beyond gaming

**Technology Course Description – continued:**

***Game Design and Development***

Employ and experiment with the tools and production methods of industry professionals and independent artists to create original games

- Game design principles
- Games development process
- Systems thinking in games and esports
- Mobile gaming development
- Virtual Reality and Augmented Reality toolkits

***Games Media and Content Creation***

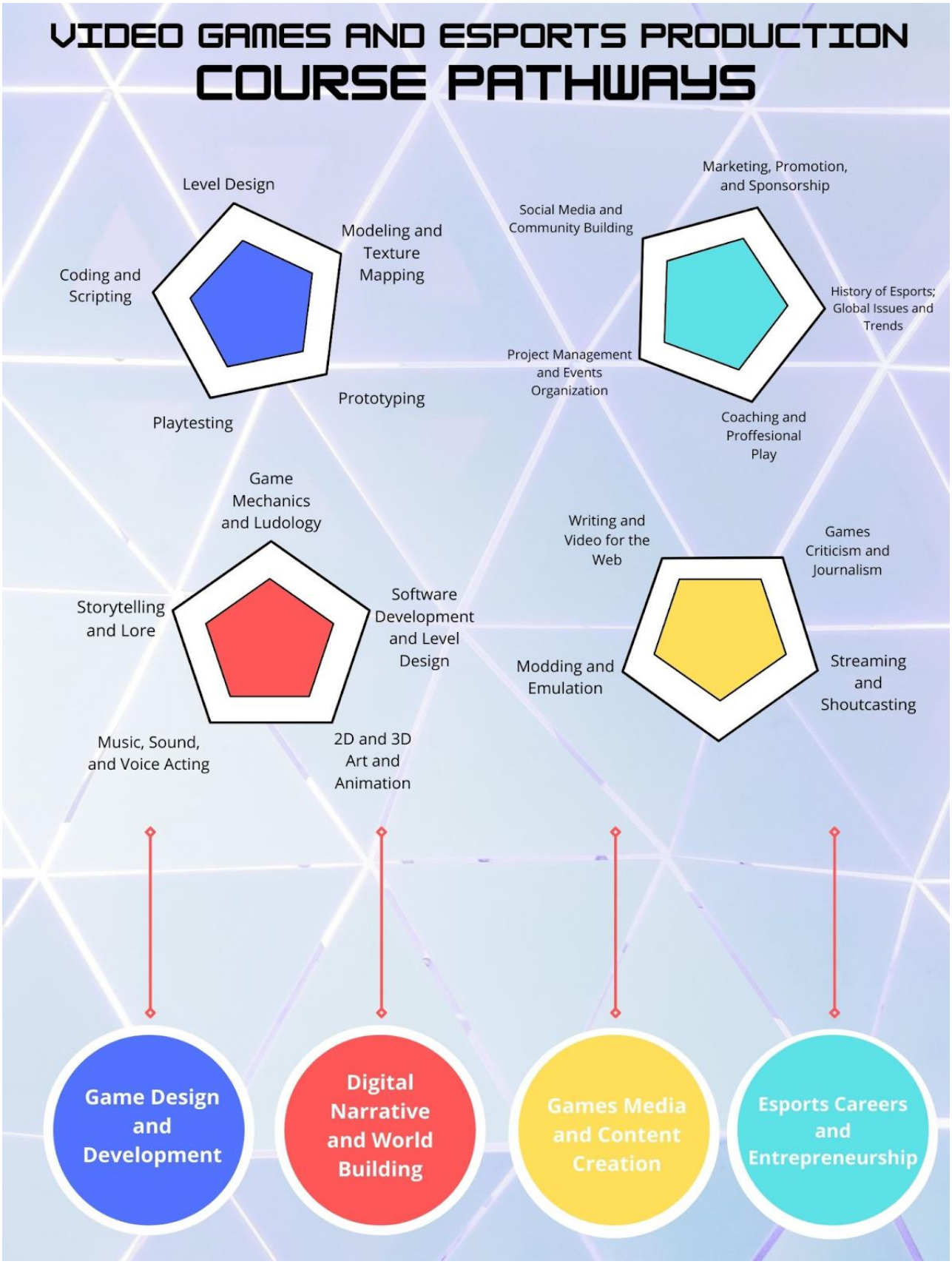
Explore the ways we write and talk about games and the new media trends it espouses

- Game reviews and journalism
- Livestreaming (OBS StreamLabs), shoutcasting, and audience engagement
- Informational and argumentative writing and web video production

***Esports Careers and Entrepreneurship***

Explore and practice within different avenues and choices available as one paves their way through the gaming and esports world

- Project management: propose, design, organize, coordinate and implement gaming and esports content
- Social media and community building; branding, promotion, and sponsorship
- Professional communications, decision-making, and teamwork


VIDEO GAMES AND ESPORTS PRODUCTION
COURSE PATHWAYS
Level Design
Modeling and Texture Mapping
Coding and Scripting
Prototyping
Playtesting
Marketing, Promotion, and Sponsorship
Social Media and Community Building
History of Esports; Global Issues and Trends
Project Management and Events Organization
Coaching and Proffesional Play
Game Mechanics and Ludology
Software Development and Level Design
Storytelling and Lore
2D and 3D Art and Animation
Music, Sound, and Voice Acting
Writing and Video for the Web
Games Criticism and Journalism
Modding and Emulation
Streaming and Shoutcasting
Game Design and Development
Digital Narrative and World Building
Games Media and Content Creation
Esports Careers and Entrepreneurship

# PROJECT LEAD THE WAY

Course Offerings:

| | | | |
|---|---|---|---|
| Computer Science Essentials | 40 weeks | 1 unit | 9, 10, 11, 12 |
| Engineering Essentials | 40 weeks | 1 unit | 9, 10, 11, 12 |
| Cybersecurity | 40 weeks | 1 unit | 10,11, 12 |
| Principles of Engineering | 40 weeks | 1 unit | 10, 11, 12 |

**Project Lead the Way Course Descriptions:**

**Computer Science Essentials** 40 weeks 1 unit 9, 10, 11, 12

Computer Science Essentials (CSE) is designed to be a full year course. The course is an excellent entry point for new computer science learners. All students will have opportunities for creative expression and exploration in topics of personal interest, whether it be through app development or connecting computing with the physical world. CSE introduces students to coding fundamentals through an approachable, block-based programming language where they will have early success in creating usable apps. Students will transition to programming environments that reinforce coding fundamentals by displaying block programming and text-based programming side by side. Students will learn the poser of text-based programming when they are introduced to Python programming language.

This course engages students in computational thinking practices and collaborative strategies, as well as industry- standard tools authentic to how computer science professionals work. Students will learn about professional opportunities in computer science and how computing can be an integral part of all careers today.

**Engineering Essentials** 40 weeks 1 unit 9, 10, 11, 12

Engineering Essentials is a full-year course designed to be a high school student's first exposure to the PLTW engineering program and is appropriate for students in grades 9-12. Students will explore the work of engineers and their role in the design and development of solutions to real-world problems. The course introduces students to engineering concepts that are applicable across multiple engineering disciplines and empowers them to build technical skills through the use of a variety of engineering tools. Students learn and apply the engineering design process to develop mechanical, electronic, process and logistical solutions to relevant problems.

Students will advance from completing structured activities to solving open-ended projects and problems that provide opportunities to develop planning and technical documentation skills, as well as in-demand, transportable skills. Students will work both individually and collaboratively on activities, projects, and problems to create solutions using common engineering design and development protocols.

**Project Lead the Way Course Descriptions:**

**Cybersecurity** 40 weeks 1 unit 10, 11, 12
Prerequisite: Successful completion of Computer Science Essentials

Cybersecurity is a full-year course. The design of the course exposes high school students to the ever growing and far reaching field of cybersecurity. Cybersecurity strongly connects to the National Cybersecurity Workforce Framework. This framework identifies standards developed by numerous academic, industry, and government organizations.

Cybersecurity gives students a broad exposure to the many aspects of digital and information security, while encouraging socially responsible choices and ethical behavior. Students explore the many educational and career paths available to cybersecurity experts as well as other careers that compromise the field of information security.

**Topics**

Unit 1 – Personal Security
Unit 2 – System Security
Unit 3- Network Security
Unit 4- Applied Cybersecurity

**Project Lead the Way Course Descriptions:**

**Principles of Engineering** 40 weeks 1 unit 10, 11, 12
Prerequisite**:** Students are required to have successfully completed the introductory engineering course – Engineering Essentials

Principles of Engineering is a foundation course of the high school engineering pathway. This survey course exposes students to some of the major concepts that they will encounter in a postsecondary engineering course of study. Students will explore a wide range engineering topics, including mechanisms, the strength of materials and structures, automation and kinematics.

Students will be solving rigorous and relevant design problems using engineering and science concepts within a collaborative learning environment. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community.

**Principles of Engineering**

**Units**

1. Energy and Power
2. Materials and Structures
3. Control Systems
4. Statistics and Kinematics

# ART DEPARTMENT

Course Offerings:

| | | |
|---|---|---|
| Clay | 40 weeks 1 unit | 10, 11, 12 |
| Advanced Clay | 40 weeks 1 unit | 11, 12 |
| 3D Design & Production | 40 weeks 1 unit | 10, 11, 12 |
| Media Journalism | 40 weeks 1 unit | 12 |
| Studio in Art | 20 weeks ½ unit | 10, 11, 12 |
| Intro to Painting | 20 weeks ½ unit | 10, 11, 12 |
| Intro to Drawing | 20 weeks ½ unit | 10, 11, 12 |
| Figure Drawing | 20 weeks ½ unit | 10, 11, 12 |
| Advanced Drawing | 20 weeks ½ unit | 10, 11, 12 |
| Basic Sculpture | 20 weeks ½ unit | 9, 10, 11, 12 |
| Intro to Graphic Design | 20 weeks ½ unit | 9, 10, 11, 12 |
| Advanced Graphic Design | 20 weeks ½ unit | 10, 11, 12 |
| Intro to Digital Photography | 20 weeks ½ unit | 11, 12 |
| Advanced Digital Photography | 20 weeks ½ unit | 11, 12 |
| Intro to Filmmaking | 20 weeks ½ unit | 10, 11, 12 |
| Portfolio Development | 20 weeks ½ unit | 11, 12 |
| Intro to Acting in Film | 20 weeks ½ unit | 10, 11, 12 |
| Digital Illustration | 20 weeks ½ unit | 10, 11, 12 |
| Animation | 20 weeks ½ unit | 10, 11, 12 |

The Art Department **strongly** suggests that any student who plans on taking more than one Art Course during their High School Plan should take the core courses of Studio Art, Sculpture, Clay and Drawing & Painting as a preparatory base for success in the other Art electives.

**Art Course Descriptions:**

**Studio in Art** 20 weeks 1/2 unit 10, 11, 12
Prerequisite: None

Ready to explore your creative side? Our Studio Art class is the perfect place to start – no prior experience needed! We'll dive into a world of color, texture, and imagination, experimenting with drawing, painting, collage, and mixed media techniques. You'll learn to express yourself visually, learn new skills, experiment with different styles, and build confidence in your artistic abilities. Whether you're a budding artist or simply looking for a creative outlet, this class is your canvas for self-expression. Ignite your inner artist and let's create something amazing together!

**Intro to Painting** 20 weeks 1/2 unit 10, 11, 12
Prerequisite: None

Who doesn't want to add a little color into their life? In this exciting, hands-on painting course, you'll dive into the world of vibrant hues and creative expression! You'll get to experiment with a variety of water-based mediums like ink, watercolor, gouache, and acrylic—each with its own unique magic. Whether you're creating soft washes, bold strokes, or dreamy layers of color, you'll learn the techniques that make each medium come alive on the canvas. You'll paint from direct observation (like still life or portraits) and also use print references to fuel your creativity. You'll also work on fun personal projects, including a self-portrait that shows off your creative style, a genre scene to explore different moods and settings, and other experimental pieces that will help you grow as an artist and build a standout portfolio. By the end of the class, you'll be mixing colors, experimenting with techniques, and creating artworks that express your unique voice. Whether you're painting for fun or planning to develop your skills further, this course is your ticket to an unforgettable journey through the world of painting!

**Intro to Drawing** 20 weeks 1/2 unit 10, 11, 12
Prerequisite: None

Bring your imagination to life in this hands-on, creativity-packed course. You'll learn the essentials of drawing while exploring your own artistic voice! Whether you dream of sketching portraits, still life, landscapes or creating wild abstract designs, this class will give you the skills and confidence to create art that feels uniquely yours. We'll start with the basics of observational drawing, then we'll dive into. 2-point perspective- to make your drawings look three-dimensional like they're jumping off the page! Next, portraiture! Learn the secrets to making an eye look real and finally master how to draw a nose! You'll also explore a range of materials like graphite, charcoal, marker, and paste. We'll teach you shading techniques and how to use values (light and dark) to create depth, contrast, and mood in your work. Along the way, we'll discuss drawing styles, from realistic to abstract, and give you the space to experiment and find the style that feels most authentic to you. And by the end of this course, you'll have a solid understanding of how to view and create art with a critical, creative eye. Whether you're sketching for fun or thinking about an artistic future, this class will give you the foundation to continue exploring the endless possibilities of drawing. Grab your supplies and let's start drawing your world—one line at a time!

**Art Course Descriptions:**

**Figure Drawing** 20 weeks 1/2 unit 10, 11, 12
Prerequisite: None

Welcome to the world of figure drawing! In this beginner-friendly class, you'll learn to capture the beauty and movement of the human form in your own unique style. Through hands-on exercises and supportive guidance, we'll explore basic anatomy, proportions, and expressive line work. You'll discover different techniques and materials to help bring your drawings to life, while building confidence and creativity along the way. Whether you're brand new to drawing or have some experience, this class is for everyone who wants to explore and enjoy the art of figure drawing in a fun, welcoming environment.

**Advanced Drawing** 20 weeks 1/2 unit 10, 11, 12
Prerequisite: Intro to Drawing or Figure Drawing or Instructor Recommendation

Take your drawing skills to the next level in this advanced class designed for students who want to deepen their artistic practice! Here, you'll explore more complex techniques, experiment with a variety of media, and develop your unique style and voice. We'll dive into advanced concepts like perspective, texture, and composition, and tackle exciting projects that challenge your creativity and skill. With a focus on refining your technical abilities and expressing yourself, this class is perfect for anyone ready to push their artistic boundaries!

**Basic Sculpture** 20 weeks 1/2 unit 9, 10, 11, 12
Prerequisite: None

This half-year sculpture course provides students with an introduction to a variety of three-dimensional art-making techniques, materials, and concepts. Students will explore sculptural processes, including additive, subtractive, and assemblage techniques, using materials such as clay, metal, wire, plaster, wood, and found objects. Through hands-on projects, and materials exploration, students will develop their skills in modeling, carving, casting, and constructing, while also gaining a deeper understanding of form, space, texture, and structure.

**Art Course Descriptions:**

**Clay** 40 weeks 1 unit 10, 11, 12
Prerequisite: None

This course will introduce students to tools, techniques, and concepts that will inspire functional and sculptural works of art made from clay. Students will be taught the fundamental principles of three-dimensional design, clay hand-building techniques, 'throwing on the pottery wheel, as well as how to paint, stain and glaze their projects. Students will learn to analyze and discuss a variety of ceramic and other three-dimensional works of art from different cultures and time periods.

**Advanced Clay** 40 weeks 1 unit 11, 12
Prerequisite: One Clay course and Instructor Recommendation

This is an advanced level course for students who have taken the introductory Clay course. This class is designed to allow advanced ceramic students to work on developing a personal expression in clay through advanced hand-building, wheel throwing, and surface techniques. Students will be introduced to a series of contemporary ceramic artists & potters, which will serve as inspiration for students to design and direct their own projects with guidance from the instructor. Each student will be expected to maintain a journal/sketchbook in which they plan, organize and reflect upon their work. Students will also be expected to develop a complete portfolio of ceramic work by the year's end and to digitize this portfolio for presentation to the class and critique.

**Art Course Description – continued:**

**Intro to Graphic Design** 20 weeks 1/2 unit 9, 10, 11, 12
(Formerly Intro to Digital Media Arts)
Prerequisites: None

Dive into the exciting world of graphic design! Our Intro to Graphic Design course will equip you with the skills and knowledge to create stunning visuals that captivate audiences. No experience needed! You'll learn the fundamentals of design, like color theory, typography, and layout, while creating eye-catching posters, social media graphics, and more! By the end of the course, you'll have a solid foundation in visual communication and be ready to take on any design challenge. Whether you're dreaming of a career in design or just want to add a creative flair to your projects, this course is your launchpad to a world of endless possibilities!

**Advanced Graphic Design** 20 weeks 1/2 unit 10, 11, 12
Prerequisites: Intro to Graphic Design (formerly Intro to Digital Media Arts)

Ready to take your graphic design skills to the next level? Our Advanced Graphic Design course is designed to challenge and inspire you to create stunning visuals like the pros! Imagine designing a captivating brand identity for a startup, crafting eye-catching social media campaigns, or creating stunning packaging designs. While mastering advanced techniques in the Adobe Creative Suite, we'll tackle an array of real-world projects, explore emerging design trends, and learn best practices in the industry to create stunning visuals for print, web, and social media. Whether you're aiming for a career in design or simply want to enhance your creative skills, this course will help you stand out in a visually-driven world. Let's design something extraordinary!

**3D Design & Production** 40 weeks 1 unit 10, 11, 12
Prerequisites: None

Ready to step into the future of design? Our 3D Design & Production course is your passport to the exciting world of 3D digital art. Using powerful software like Blender, you'll learn techniques in modeling, sculpting, texturing, and animating to create one of a kind 3D forms. From designing 3D characters, to modeling unique architectural environments, you'll be exposed to the full spectrum of 3D design. Plus, through 3D printing, you'll have the opportunity to transform your digital creations into tangible objects. Whether you're dreaming of creating video game characters, architectural designs, futuristic props, or simply want to challenge your creativity, this course will prepare you for the future of 3D technology.

**Art Course Descriptions – continued:**

**Intro to Digital Photography** 20 weeks 1/2 unit 11, 12
Prerequisites: None

Of course, you already know how to take basic photographs, but do they wow people? Take your photos to the next level in Intro to Digital Photography. You'll not only learn to maximize your phone camera's potential, you'll also learn how to shoot with a DSLR and dive into the magic of editing with Photoshop! Learn how to transform everyday moments into stunning shots, retouch portraits to perfection, and even experiment with fun photo manipulation techniques that will have your images turning heads. From lighting and composition to digital wizardry, this hands-on class is perfect for anyone who wants to snap, edit, and create like a pro. Grab your camera, unleash your creativity, and let's start shooting (and editing)!

**BONUS**: You can opt to get 3 college credits! Intro to Digital Photography is offered in conjunction with Orange Community College (CCHPS - Community College in the High School Program, Art 121), offering high-achieving juniors and seniors the opportunity to earn 3 college credits while attending this class.

**Advanced Digital Photography** 20 weeks 1/2 unit 11, 12
Prerequisites: Intro to Digital Photography

If you loved Intro to Digital Photography, Advanced Digital Photography is where you'll push your creative boundaries and dive deeper into the art of capturing stunning photographs. This course is packed with pro-level tips and techniques—think advanced studio lighting setups, creative composition strategies, and more complex editing in Photoshop, including in-depth retouching and surreal photo manipulation. You'll explore different photography styles, from dramatic portraits to action-packed shots, and even create your own photo series. If you're ready to go beyond the basics and make your photos truly pop, this is the course for you!

**BONUS**: You can opt to get 3 college credits! Advanced Digital Photography is offered in conjunction with Orange Community College (CCHPS - Community College in the High School Program, Art 122), offering high-achieving juniors and seniors the opportunity to earn 3 college credits while attending this class.

**Art Course Descriptions – continued:**

**Intro to Filmmaking** 20 weeks 1/2 unit 10, 11, 12
Prerequisite: Digital Photography or Intro to Graphic Design suggested but not required

You've made tons of silly videos of course, but have you ever wondered about making your own truly cinematic movies? In Intro to Filmmaking, you'll learn how to bring your big ideas to life on screen! This hands-on course covers everything you need to become a filmmaker, from mastering camera techniques to understanding the visual language of film. You'll break down scenes from famous films to discover what makes them unforgettable, then get behind the camera yourself to put those techniques to the test. And, of course, no film is complete without the magic of editing! You'll dive into editing software to cut, color, and add effects to turn your footage into a finished film. Let's start filming!

**Intro to Acting in Film** 20 weeks 1/2 unit 10, 11, 12
Prerequisites: None

Lights, camera, action! In Intro to Acting, you'll dive into the world of performance and learn what it takes to bring characters to life. This course is packed with fun, hands-on activities, from improv games to monologue work, scene studies and on-camera work where you'll practice acting for film! What makes a character unforgettable? We'll break down scenes from classic films and discover how the pros do it. Then, you'll get your turn in the spotlight with acting exercises that help you tap into emotions, improve your voice, and build confidence on stage and screen. So, if you're ready to get dramatic, grab a script and let's get started—Hollywood is waiting!

**Portfolio Development** 20 weeks 1/2 unit 11, 12
Prerequisite: Teacher Recommendation Required

Do you yearn to explore your own creative vision? In Portfolio Development, you'll have the freedom to design and pursue personal art projects with the guidance of an inspiring instructor. Whether you want to focus on painting, drawing, sculpture, digital art, or something entirely unique, this class is all about supporting your interests and helping you build an impressive portfolio to land your dream college or job. Make your creative dreams a reality in Portfolio Development.

**Art Course Descriptions – continued:**

**Digital Illustration** 20 weeks 1/2 unit 10, 11, 12
(Formerly Computer Illustration & Animation)
Prerequisites: None

Ignite your imagination and discover the world of digital illustration! Our Digital Illustration course will teach you how to create stunning digital artwork using Adobe Illustrator and Procreate. You'll learn essential drawing techniques, color theory, and composition as you master the art of vector graphics and digital painting. Whether you're sketching a character, designing a t-shirt, or illustrating a storybook, this course will help you develop your unique style and build a strong foundation in digital illustration. Whether you're a budding artist or a seasoned creator, this course will help you hone your skills and express your unique style. Let's dive into the exciting world of digital illustration together!

**Animation** 20 weeks 1/2 unit 10, 11, 12
Prerequisites: None

Get ready to bring your stories to life! In our Intro to Animation class, you will learn the art of storytelling through 2D animation! No prior experience is necessary. We'll start with basic drawing and storytelling techniques, then dive into the digital world of animation. While using industry-standard software, such as Adobe Animate, you'll learn the fundamental principles of animation, character design, timing, and storytelling to bring your characters to life, frame by frame. Whether you're aspiring to work in the animation industry or simply want to add a dynamic element to your creative projects, this course will ignite your imagination.

**Media Journalism** 40 weeks 1 unit 12
Prerequisite: Must be enrolled in the Art credit and the English credit

Welcome to Media Journalism! This course is your gateway into the world of modern journalism, where creativity meets critical thinking and storytelling shapes the world around us. In this class, you'll explore the art of reporting, writing, and producing content for a variety of media platforms, including digital news, blogs, podcasts, and video.

Through hands-on projects, you'll learn to research, write, and edit stories that matter, practicing skills like interviewing, fact-checking, and using multimedia tools to bring stories to life. Whether you're interested in pursuing a career in journalism or just want to strengthen your communication skills, this course will give you a voice and the tools to use it. No prior experience is needed—just curiosity and a willingness to dive in and share the stories that inspire you.

# MUSIC DEPARTMENT

Course Offerings:

| | | |
|---|---|---|
| Concert Band | 40 weeks 1 unit | 9, 10, 11, 12 |
| Wind Ensemble | 40 weeks 1 unit | 10, 11, 12 |
| Concert Choir | 40 weeks 1 unit | 9, 10, 11, 12 |
| Chambers Singers | 40 weeks 1 unit | 10, 11, 12 |
| Digital Music Production & Engineering | 40 weeks 1 unit | 9, 10, 11, 12 |

**Music Course Descriptions:**

**Concert Band** 40 weeks 1 unit 9, 10, 11, 12
Prerequisite: Permission of the instructor

Open to instrumentalists who have achieved the skills necessary to perform the basic band literature. The band will study and perform music at levels IV and V as defined by the New York State School Music Association (NYSSMA). The course meets alternate days throughout the year. Separate band lessons are scheduled on a rotating basis.

**Wind Ensemble** 40 weeks 1 unit 10, 11, 12
Prerequisite: Permission of the instructor based on assessment skills in Concert Band

This band will study and perform a more advanced level of music than the Concert Band. Enrollment is based upon student skill level and balanced instrumentation. Students will perform music at levels V and VI as defined by the New York State Music Association (NYSSMA). The course meets on alternate days through the year with separate lessons scheduled on a rotating basis.

**Concert Choir** 40 weeks 1 unit 9, 10, 11, 12
Prerequisite: Permission of the instructor

This High School Chorus is open to singers of all ability levels. This chorus studies and performs a wide variety of music from the standard choral repertoire. The High School Chorus performs at least two formal evening concerts, and on occasion, outside of the school. The course meets on alternate days throughout the year with scheduled lessons given on a rotating basis.

**Chamber Choir** 40 weeks 1 unit 10, 11, 12
Prerequisite: High School Chorus AND must be auditioned and recommended by the instructor

This Select Chorus studies and performs advanced-level High School Chorus music. Students will perform music at level V and VI as defined by the New York State School Music Association (NYSSMA). Students accepted to the Select Chorus will have prior knowledge of sight-reading and solfeggio, and will demonstrate ability to sing independent parts alone and with a group through audition. This course meets on alternate days throughout the year with scheduled lessons on a rotating basis.

**Music Course Descriptions:**

**Digital Music Production and Engineering** 40 weeks 1 unit 9, 10, 11, 12
Prerequisite: None

The main focus of this class will be how to create music through the use of digital music production software. Classwork will include recording live music, using notation software, mixing, and editing sounds, and producing student compositions.

This course will be available to all $9^{th}$ – $12^{th}$ graders and without any necessary prerequisites. Lessons will be both student centered and student driven; beginning at the students ability and experience level and branching out and forward. Through varying instructional practices, individual, and group projects, students will learn all aspects of music production ranging from simple programming skills to full size compositions. Students will also learn basic piano, guitar and music theory skills. All of these skills will be helpful towards creating successful music productions. Grading will be based on projects, daily objectives, and participation.

# CAREER AND TECHNICAL COURSES OFFERED

**Appearance Academy**:
-Cosmetology
-Esthetics

**Construction Academy:**
-Carpentry
-Electrical Construction
-HVAC/Plumbing
-Welding

**Culinary Academy:**
-Culinary Food Trades

**Education Academy:**
-Early Childhood Development & Care
-Education and Management

**Environmental Academy:**
-Animal Science (Vet. Asst.)
-Heavy Equipment

**Health Careers Academy:**
-Allied Health Assistant
-Dental Careers
-Emergency Medical Services
-Exercise Science & Personal Training
-Home Health Aide/Personal Care Aide
-Nursing Assistant
-Pharmacy Technician
-Principles of Health OCC

**Security Academy:**
-Fire Science
-Law Enforcement

**STEM Academy:**
-Computer Networking
-Computer Programming/Video Game Dev
-Engineering Design & Architecture
-Mechatronics & Robotics Engineer

**Transportation Academy:**
-Auto Body/Restoration
-Automotive Technology
-Aviation

**Basic Occupational Education:**
- Work Place Learn

**Visual Arts**
-Graphic Design & Digital Media
-Digital Film & Post Production
-Fashion & Interior Design

## Health Course Description

**Health** 40 weeks 1 unit 9, 10, 11, 12
Prerequisite: None

This is a 1unit course required by N.Y.S. for graduation. The curriculum follows N.Y.S. guidelines and meets the new learning standards as set forth by the Education Department. Objectives include providing accurate information, the development of healthy attitudes and behaviors, promoting positive decision making, awareness of employment opportunities and encouraging students to begin a lifelong process of choosing and enjoying a healthy life style. Major units include mental health, drug abuse, nutrition, diseases and disorders, sexuality, parenting education, first aid and current health issues.

# PHYSICAL EDUCATION DEPARTMENT

**Course Offerings:**

| | | |
|---|---|---|
| Physical Education | 20 weeks 1/2 unit | 9, 10, 11, 12 |
| Life Guarding | 20 weeks 1/2 unit | 10, 11, 12 |
| Philosophy of Coaching & Health Sciences Applied to Coaching | 20 weeks 1/2 unit | 11, 12 |

## PHYSICAL EDUCATION GRADUATION REQUIREMENT

**Physical Education** All Diplomas 2 units 9, 10, 11, 12

All students must participate and receive a passing grade in one Physical Education experience during each of their four years in High School. 9th and 10th grade students will be required to participate in a swimming unit each year. Life Guarding can be taken in place of the regular Physical Education experience. All students will be scheduled for either fall or spring and will meet for 90 minutes on an every other day basis. Any student requiring an Adaptive program will be scheduled on an individual basis within their assigned section. Grades are based upon class participation, rubric score, and written assignments.

**Philosophy of Coaching** 20 weeks 1/2 unit 11, 12
**Health Sciences Applied to Coaching**
Prerequisite: By application and teacher selection. Applicants must have a 90 or higher average in previous Physical Education courses. Students should also be involved competitive athletics either in school or in an out of school organization.

This course will satisfy the NYS requirements for coaches, including Philosophy of Coaching and health science for coaches. Students who successfully complete the course will be partially certified and will need to complete other requirements before being able to apply for a coaching position. These courses provide permanent certificates that students will not have to repeat in college or later when they apply for coaching positions.

## Physical Education Course Descriptions:

**Physical Education** 20 weeks 1/2 unit 9, 10, 11, 12

This course is required for every student in grades 9-12. Swimming is a required unit for 9th and 10th grade. A variety of units are provided to give students the experiences in personal fitness, individual sports, team sports, swimming, CPR, N.Y.S coaching courses and dance. Grades are based upon class participation, rubric score, and written assignments.

**Adapted Physical Education**

This course will, in most cases, be provided within the regular Physical Education setting. The individuals requiring these adaptations will have their program modified to meet their specific disability or limiting physical condition.

**Lifeguarding** 20 weeks 1/2 unit 10, 11, 12

**PURPOSE:** The primary purpose of the American Red Cross Lifeguarding program is to provide participants with the knowledge and skills needed to prevent, recognize and respond to aquatic emergencies and to provide professional-level care for breathing and cardiac emergencies, injuries and sudden illnesses until emergency medical services (EMS) professionals take over.

**PREREQUISITES**:

1. Participants must be 15 years of age on or before the last scheduled session of the course.
2. Complete a swim-tread-swim sequence without stopping to rest:

    - Jump into the water and totally submerge, resurface then swim 150 yards using the front crawl, breaststroke or a combination of both. (Swimming on the back or side is not permitted. Swim goggles are allowed.)
    - Maintain position at the surface of the water for 2 minutes by treading water using only the legs.
    - Swim 50 yards using the front crawl, breaststroke or a combination of both.

3. Complete a timed event within 1 minute, 40 seconds.
    - Starting in the shallow end, swim 20 yards. (The face may be in or out of the water. Swim goggles are not allowed.)
    - Surface dive (feet-first or head-first) to a depth of 7-10 feet to retrieve a 10-pound object.
    - Return to the surface and swim 20 yards on the back to return to the starting point, holding the object at the surface with both hands and keeping the face out at or near the surface.
    - Exit the water without using a ladder or steps.

## Physical Education Course Descriptions:

## Waterfront Lifeguarding:

**Purpose:** The purpose of the waterfront Skills Module in the American Red Cross Lifeguarding program is to provide participants certified in Lifeguarding (that included training in deep water 7 feet or deeper) with the knowledge and skills needed to:

- Prevent, recognize and respond to aquatic emergencies in **non-surf, open-water areas** found at public parks, resorts, summer camps and campgrounds.

**Prerequisites:**

1. Participants must be 15 years of age on or before the last scheduled session of the Waterfront Module.
2. Have a current American Red Cross certificate for Lifeguarding (that included training in deep water 7 feet or deeper).
3. Complete a swim-tread-swim sequence without stopping to rest:
   - Jump into the water from the side, totally submerge, recover to the surface and swim 350 yards.
   - After swimming 350 yards, maintain position at the surface of the water without support for 2 minutes by treading.
   - After maintaining position at the surface of the water for 2 minutes, swim 200 more yards.
   - While swimming, you must swim continuously, keeping your face in the water and demonstrating good breath control.
   - You may use the front crawl, breaststroke or a combination of both. Swimming on the back or side is not permitted.
   - Swim goggles are allowed.
4. Complete a timed event within 1 minute, 40 seconds:
   - Starting in the water, swim 20 yards. Your face may be in or out of the water.
   - Surface dive (feet-first or head-first) to a depth of 7 to 10 feet to retrieve a 10-pound object.
   - Return to the surface and swim 20 yards on your back to return to the starting point, holding the object at the surface with both hands and keeping your face at or near the surface. Swimming the distance underwater is not permitted.
   - Exit the water without using a ladder or the steps.
5. Complete an underwater swim:
   - Swim 5 yards, submerge and retrieve three dive rings placed 5 yards apart in 4-7 feet of water.
   - Resurface and continue to swim another 5 yards

# AJROTC

Army Junior Reserve Officers Training Corps

Colonel Michael Brockway
Army Instructor

Mission: To motivate young people to be better Citizens.

Scope: The JROTC program is a cooperative effort on the part of the United States Army and Washingtonville Central School District to provide secondary school students the opportunity for total development. The program prepares high school cadets for responsible leadership roles while making them aware of their rights, responsibilities and privileges as American citizens. The program is a stimulus for promoting graduation from high school and it provides instruction and rewarding opportunities which will benefit the cadet, community and nation.

The student cadets are organized into a Cadet Battalion with its own Chain of Command. Cadets are promoted through the ranks to fulfill the roles of Noncommissioned officers and Commissioned officers. The program also offers cadets the chance to join the Drill Team and Color Guard, which competes against JROTC units from throughout NY, PA, NJ, CT, MA and RI in drill competitions.

Grading is subjective-based through the use of a Program of Instruction compiled by the U.S. Army Cadet Command, and objective-based through Instructor evaluation of cadet motivation, deportment and spirit of cooperation (team work). Team-building skills and leadership development are emphasized.

STUDENTS MAY USE THE COURSES DESCRIBED HERE TO FULFILL ONE OF THE REQUIRED THREE UNIT SEQUENCES.

| | | | |
|---|---|---|---|
| Leadership Education and Training (LET) I | 40 weeks | 1 unit | 9, 10, 11, 12 |
| Leadership Education and Training (LET) II | 40 weeks | 1 unit | 10, 11, 12 |
| Leadership Education and Training (LET) III | 40 weeks | 1 unit | 11, 12 |
| Leadership Education and Training (LET) IV | 40 weeks | 1 unit | 12 |

NOTE: 1. The JROTC classes are offered as credit electives and carry no military obligation or commitment to the military whatsoever. However, based on Instructor recommendation, students who enlist in the Armed Forces may begin at a higher rank and pay grade.

2. Because of the need to maintain military discipline, cadets who do not show a willingness to comply with orders of the instructors and/or the Chain of Command, to include the weekly wear of the uniform, may be dismissed at anytime throughout the year.

## AJROTC Course Descriptions:

**Leadership Education and Training (LET) I**:
Introduction/Orientation Phase
Level: Regents, Local 40 weeks 1 unit 9, 10, 11, 12
Full year, Alternate days
Prerequisite: None

This first year course in citizenship and leadership concentrates on "Followership" by emphasizing civic values, disciplinary standards, and ethics. The cadet entry experience incorporates an "accelerated promotion" program as an incentive for meritable cadets who become actively involved as participants in JROTC activities. Subjects include Leadership Labs of Drill and Ceremonies, Physical Training and Cadet Challenge, Citizenship, History of the Nation and of ROTC, Map Reading, Communication, First Aid, Drug Abuse Prevention, Human Relations, Current Events, Basic School Skills Review, and selected optional subjects including spontaneous and planned events. Participation on the drill team as an extra-curricular activity is encouraged (Oct-May). Cadets may earn a Junior Varsity letter for active participation in the drill team or color guard team. A 4-7-day summer camp in late June or July is also available for interested cadets.

**Leadership Education and Training (LET) II**:
Intermediate Phase
Level: Regents, Local 40 weeks 1 unit 10, 11, 12
Full year, Alternate days
Prerequisite: LET I

In this second year, emphasis changes from “followership” to “leadership” as the cadets learn those techniques necessary to become confident small unit leaders. Topics covered in LET I are reviewed and expanded upon. Participation on the extra-curricular drill teams may earn cadets a Junior Varsity or Varsity letter. A 4-7-day summer camp in late June or July is also available for interested cadets.

**Leadership Education and Training (LET) III**:
Applied Phase
Level: Regents, Local 40 weeks 1 unit 11, 12
Full year, Alternate days
Prerequisite: LET II

This third course concentrates on the participant's individual leadership skills. Some of the highest cadet noncommissioned officer positions and many of the junior cadet officer positions will be filled by cadets allowing for a smooth transition to the fourth year's senior status of command and staff. Management of resources and time is emphasized. Participation on the extra-curricular drill team may earn cadets a Junior Varsity or Varsity letter. A 4-7-day summer camp in late June or July is also available for interested cadets.

## AJROTC Course Descriptions:

**Leadership Education and Training (LET) IV**:
Applied Phase
Level: Regents, Local 40 weeks 1 unit 12
Full year, Alternate days
Prerequisite: LET III

In this fourth year culminating course, the highest cadet officers administer and lead the Corps of Cadets. They will serve as leaders, role models and assistant instructors. Topics include Psychology of Leadership, Small and Large Unit Leadership Problems, Command and Staff, and Military Technical Skills. Participation on the extra-curricular drill team may earn cadets a Junior Varsity or Varsity letter.

## Enriched/ Accelerated/College-level Courses

Washingtonville High School is proud to have a long history of providing courses that challenge students to perform at their highest levels. These courses are designed to provide the challenge to students who desire to go beyond the scope of Regents-level study. Students who enroll in these courses have demonstrated high achievement in the subject and exemplary abilities in the following areas: critical thinking skills, reading comprehension, written and verbal communication skills, work ethic, class participation, and team work.

There are several types of challenging courses for students:

- **Enriched** - courses that are offered on grade level and provide study that is more in-depth and at a faster pace. These courses are weighted by 5%.
- **Enriched/Accelerated** – enriched courses that are offered to students a year ahead of grade level. These courses are weighted by 5%.
- **Advanced Placement (AP)** - courses are considered college level and the curriculum is audited and approved by the CollegeBoard. Students must pay for and take the AP exam in May. Success on this exam may provide college credit depending upon the score and the school the student will be attending. It is the responsibility of the student to consult with potential colleges regarding their policy for accepting AP credits. These courses are weighted by 10%.
- **College-level** – courses that are offered in partnership with specific colleges. Tuition payable to the college by the student is required. Upon successful completion, the student will earn college credits and receive a transcript from the designated college. These credits may be transferrable to other colleges/universities depending upon the school the student ultimately attends. It is the responsibility of the student to consult with potential colleges regarding their policy for accepting these credits. These courses are weighted by 10%.

There are several advantages to taking college-level and AP courses. College-level study better prepares the student for the academic demands of college. Studies show students who take and pass these courses are more successful in college. These courses strengthen the student's application to college because successful completion shows that the student is willing to challenge her or himself. In addition, the credits that are accepted by the school the student attends may reduce the courses the student will be required to take at that school. Again, it is the student's responsibility to consult with potential colleges regarding their policies for accepting credits.

**Criteria for Placement**

The areas listed below are used to determine if placement is appropriate for a particular student. The goal is to match a student's abilities with the best opportunity for success and growth. There is no minimum criterion because a holistic picture of each student is used to determine appropriate placement. Previous enrollment in an enriched course does not automatically guarantee placement.

1. Student's average in the particular subject area
2. Student's overall Grade Point Average
3. Student's performance on recent New York State assessments
4. Student's performance on standardized tests
5. Teachers' evaluation including reading and writing skills, work ethic, motivation, general interest in the subject area

If you would like to be considered for enrollment in one or more of these courses, please notify your guidance counselor by the end of March. If you have any specific questions concerning the courses, please contact the appropriate department supervisor:

David Remer, English
dremer@wcsdk12.org

Patricia Hoover, Science
phoover@wcsdk12.org

Brian Ferry, Math
Bferry@wcsdk12.org

Robin Schulze, World Language
rschulze@wcsdk12.org

Beth Frey, Social Studies
efrey@wcsdk12.org

John Waldie, Art
jwaldie@wcsdk12.org

Maura Moore, Business
mmoore@wcsdk12.org

**Notification Process**
The guidance office will forward the student requests to the respective department supervisors, who will determine the final placements. Students who are not placed in an enriched course next year are still eligible for consideration in the following year.

**The following is a list of enriched, accelerated or college-level courses offered in each subject area.**

| **English** | **Math** | **Business** |
|---|---|---|
| English 9 Enriched | Algebra 2 Enriched | Financial Accounting * |
| English 10 Enriched | Geometry Enriched | Intro. to Business **** |
| English 11 Enriched | Calculus Prep Enriched | |
| SUPA Writing/Literary Text ^ | AP Calculus AB | **Art** |
| | AP Calculus BC | Adv. Digital Photography **** |
| **Social Studies** | Intro to Statistics **** | |
| Global 1 Enriched | College Trigonometry**** | |
| Global 2 Enriched | College Algebra **** | |
| College US History **** | | |
| College Macroeconomics ** | **Science** | Mount Saint Mary College * |
| SUPA Public Affairs ^ | Earth & Space Science Enriched | Marist College ** |
| Criminal Justice ** | Chemistry Enriched | SUNY Albany *** |
| | AP Chemistry | SUNY Orange **** |
| **World Languages** | AP Environmental Science | SUPA – Syracuse University ^ |
| French 4 **** | AP Physics 1 | Project Advance |
| Spanish 4**** | College Biology **** | |
| Spanish 5 **** | SUPA Forensic Science ^ | |
| | SUPA Research ^ | |

# Minimum Graduation Requirements for Students Entering 9th Grade after September 2019

| Required Subjects | Reg. Diploma | Advanced Reg. Diploma |
|---|---|---|
| English | 4 units (Regents level or higher) | 4 units (Regents level or higher) |
| Social Studies | 4 units (Regents level or higher) | 4 units (Regents level or higher) |
| Mathematics | 3 units * | 3 units (Regents level or higher) |
| Science | 3 units ** | 3 units (Regents level or higher) |
| Language | 1 unit | 3 units (Except Occ. Ed. And Art Majors) |
| Health | 1 unit | 1 unit |
| Art and/or Music | 1 unit | 1 unit |
| Electives | 3 units | l unit |
| Physical Education | 2 units | 2 units |
| Total | 22 units | 22 units |

* Student must take 1 unit of Regents level Math and pass the Algebra Assessment Exam. The additional units of Math may be attained below the regents level.

** Student must take 2 units of Regents level Science and pass one Regents exam. The third unit of Science may be attained below regents level.

## WEIGHTING OF GRADES FOR THE PURPOSE OF OVERALL GRADE POINT AVERAGE (GPA)

Final grades as applied to overall grade point average for all courses given in the high school that are designated as Accelerated/Enriched (A/E) or Enriched (E) are weighted by a factor of 1.05. Final grades as applied to overall grade point average for Advanced Spanish Grammar (SUNY Albany) and Advanced French Grammar (SUNY Albany) are weighted by a factor of 1.10. Similarly, Final grades as applied to overall grade point average for courses designated as Advanced Placement (AP), Syracuse University Project Advance (S.U.P.A.) Marist College or SUNY Orange are weighted at a factor of 1.10.

## LOCAL, REGENTS AND ADVANCED DIPLOMA TESTING AND GRADUATION REQUIREMENTS

For students entering 9th grade beginning September 2018

## Diploma Requirements

| **REQUIRED COURSES** | REGENTS | ADVANCED REGENTS |
|---|---|---|
| English | 4 credits | 4 credits |
| Social Studies | 4 credits | 4 credits |
| Mathematics | 3 credits | 3 credits |
| Science | 3 credits | 3 credits |
| Health | 1 credit | 1 credit |
| The Arts | 1 credit | 1 credit |
| **CORE CREDITS** | **16 credits** | **16 credits** |
| French or Spanish | 1 credit | 3 credits |
| Physical Education | 2 credits | 2 credits |
| Electives | 3 credits | 1 credit |
| **Minimum Required Credit** | **22 credits** | **22 credits** |

##Students with Disabilities
The NYSED has safety net for students with disabilities (IEP, 504, declassified) to earn grades lower than 65 in order to receive a local diploma. A SACC credential may be awarded by the Committee on Special Education for students who are eligible.

## TESTING REQUIREMENTS

| **DIPLOMA TYPE** | **ENGLISH** | **MATHEMATICS** | **SOCIAL STUDIES** **US History** | **Global History** | **EARTH SCIENCE/ LIVING ENVIRONMENT** |
|---|---|---|---|---|---|
| **LOCAL DIPLOMA ##** MUST take minimum 5 required exams | English Regents | Algebra Regents | Regents | Regents | Living Environment Regents **OR** 1 Physical Science Regents |
| **REGENTS DIPLOMA** MUST pass all 5 exams with a 65 or higher | English Regents | Algebra Regents | Regents | Regents | Living Environment Regents **OR** 1 Physical Science Regents |
| **ADVANCED REGENTS DIPLOMA** MUST pass all 8 exams with a 65 or higher PLUS additional Requirements. ** | English Regents | Algebra Regents **AND** Geometry Regents **AND** Algebra 2 | Regents | Regents | Living Environment Regents **AND** 2 Physical Science Regents |
| **ADVANCED REGENTS DIPLOMA WITH HONORS** Same as Advanced Regents. Honors designation granted when the score on required exams average 90 or above+ | English Regents + required | Algebra Regents **AND** Geometry Regents **AND** Algebra 2 +highest exam grade of 3 used in average | Regents +required | Regents +required | Living Environment Regents **AND** 2 Physical Science Regents + highest exam grade of 2 used in average |

** Students may substitute 5 credits in the Arts or in Career and Technical Education in place of the three credit world language requirement. Career and Technical Education is defined as high school or vocational technical courses in Business, Technology or Consumer and Family Services.

+"With Honors endorsement" is based on an AVERAGE of 90 on the required exams for that diploma.