

State College Area High School Course Selection Guide 2021-2022



**DISTRICT MISSION:
To Prepare Students for Lifelong Success
Through Excellence in Education**



STATE COLLEGE AREA
SCHOOL DISTRICT

STATE COLLEGE AREA HIGH SCHOOL
650 Westerly Parkway - State College, Pennsylvania - 16801-4299
Telephone 814-231-1111 - Fax: 814-231-5024

Dear Students/Families/Guardians:

In high schools, we are charged with preparing students for an ever-changing future. After graduation, many students will pursue jobs and careers that have not yet been created. It is imperative to equip students with the necessary skills to be successful at the next level; whether it is college, vocational training, or work.

This process of equipping students for the next steps starts with our annual course registration process. Our registration catalog serves as a guide for the many academic programs and courses offered at State College Area High School. It contains course descriptions, specific information about graduation requirements, and other general information pertaining to graduation. I hope that this catalog proves to be helpful in answering registration questions.

Program planning is truly a team effort that involves parents, students and staff. The academic program at State College Area High School is extensive and offers a wide range of opportunities. The personal contacts made with faculty members and academic advisors will prove beneficial in the decision making process and assisting students in becoming college and career ready. Careful planning is a necessary tool that will continue to serve students in their future years at State College Area High School and beyond.

Making excellent academic decisions during a student's time at State College Area High School will allow for purposeful future planning. We want students to experience a fulfilling high school career. For planning resources available, please visit with your assigned school counselor.

Best wishes for a continued successful school career.

Sincerely,

Curtis Johnson
Principal

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****Changes sometime occur after printing. For the most up to date course guide information please visit: <http://www.scasd.org/Page/16701>**

Where to Get More Information

Park Forest Middle School – 2180 School Dr.	814-237-5301	Delta Program – 653 Westerly Pkwy	814-231-1000
Principal – Karen Wisner		Director – Jon Downs	
Counselors – Jaclyn Gum, Craig Herzing and Suzanne Thompson	814-237-5304	Counselor – Andrea Larson	814-231-1000
Mount Nittany Middle School – 656 Brandywine Dr.	814-272-4270	Career and Technical Center – 650 Westerly Pkwy	814-231-4153
Principal – Brian Ishler		Director – Ben Mordan	
Counselors – Linda Brown, Doug Romig, and Alison Turley	814-272-5944		
State College Area High School – 650 Westerly Pkwy			
High School Principal – Curtis Johnson	814-231-1111		
Director of Curriculum 6-12 – Christine Merritt	814-231-1082		
Counseling Office	814-231-1130		
Counselors:			
Class of 2022, 2023, 2024:	Katelynn Parkes (A-Co)	Steve Guthoff (Cr-G)	Paul Brigman (H-K)
	Bethany Chamberlain (L-N)	Dave Eckberg (O-Si)	Suzanne Jury Lyke (Sk-Z)
Class of 2025 (9LC):	Tanya Anderson (A-K)	Jessica Zorger (L-Z)	

How to Use the Course Selection Guide

The information included in this guide is intended to help you select courses. Your choices should be made carefully. It is important that parents and guardians are involved in this process of choosing your educational program, as well as counselors, teachers, and administrators should be seen as valuable resources as well. Read the guide carefully; make your choices wisely. Our aim is to provide each of you with the specific program that will best meet your needs now and for the future.

Refer to the course selection calendar to ensure that you are able to meet all deadlines. Review the Graduation Requirements for students in your graduating class. Ninth grade students have required coursework that is explained on page 10. We recommend that you use the Graduation Planning Guide to fill in courses that have been taken and courses that you would like to take in subsequent school years. Use the content sequencing maps in each program section to assist you in completing the table. Be sure to check for course prerequisites and read the course descriptions before making your selection.

The program sections begin on page 16. Each program section contains three parts: a general description of the overall program, a table with course sequences, and an alphabetical list of courses with the course numbers. Each course number begins with a letter code to indicate the following: Y or S = In Person Learning, I = IB Course, H = Hybrid, B = Before School, V = Virtual. Following the course number, the credits offered (Cr), and the course description are listed. The suggested grade level of the course is indicated, as are the prerequisites. *Students who have not met the course prerequisites but have evidence of other comparable preparation for the course should meet with their counselor for approval before making the selection.* Throughout the section, icons are used indicate Career Technical Center course (CTC), National Collegiate Athletic Association (NCAA) eligible courses, Keystone courses, graduation project courses, weighted grade course, and alternating year courses.

****Changes sometime occur after printing. For the most up to date course guide information please visit: <http://www.scasd.org/Page/16701> HS Course Guide 2021/22 pdf format**

Course Selection Dates for 2021-2022

2021

February 1 – February 11

Teachers share course recommendations with students, and share information about courses within their respective departments.

**February 15 – March 5
March 5**

Students complete preliminary registration. This may be done through the Home Access Center. Course Recommendation Forms e-mailed home. Students may view their course recommendations through the Home Access Center. Parents/guardians may contact teachers with questions regarding course recommendations. (E-mail addresses are available on the district website.)

**March 5
Early August**

Deadline for Charter/Private/Homeschooled to submit course requests to Registrar's Office. Schedules will be accessible on Home Access Center to parents/guardians with instructions for schedule changes. This is the **only** opportunity to request schedule changes.

**August 10
TBD – Check Website
September 16 – June**

Final schedule change requests submitted.

Students may change schedules for **limited reasons**.

Schedule changes may be considered for the following reasons: graduation requirements, medical reasons, level change, or program change.

Schedule Change Deadlines for 2021-2022

- The last day to ADD a new spring semester course is: **the first school day after the first two weeks of the second semester.**
- The last day to DROP a fall semester course without penalty is: **the first school day after one week past the end of the first marking period.**
- The last day to DROP a yearlong course without penalty is: **the first school day after one week past the end of the second marking period.**
- The last day to DROP a spring semester course without penalty is: **the first school day after one week past the end of the third marking period.**
- If the course is dropped after these dates, a "W" plus the grade attained at the time of the drop will be recorded on the student's transcript.
- The grade attained at the time of the drop will not be calculated in the student's GPA. The student must maintain 6.5 credits of instruction. Credit is not given for dropped courses.
- **Please note that student schedules are subject to change at any time due to staffing and program changes.**

Graduation Requirements

SUBJECT	CREDITS REQUIRED	EXPLANATION	SAMPLE PLAN				TOTAL
			Gr. 09	Gr. 10	Gr. 11	Gr. 12	
English	4.00	Students earn 4.00 SCASD approved English credits. See page 8 for Keystone Exam graduation requirements.	1.00	1.00	1.00	1.00	4.00
Social Studies	4.00	Students earn 4.00 SCASD approved Social Studies credits.	1.00	1.00	1.00	1.00	4.00
Science	3.00	Students earn 3.00 SCASD approved Science credits. See page 8 for Keystone Exam graduation requirements.	1.00	1.00	1.00	1.00 Optional	3.00 - 4.00
Mathematics	3.00	Students earn 3.00 SCASD approved Mathematics credits. See page 8 for Keystone Exam graduation requirements.	1.00	1.00	1.00	1.00 Optional	3.00 - 4.00
Physical Education	1.50	Students earn 1.50 SCASD approved Physical Education credits.	0.50	0.50	0.50		1.50
Health Education	1.00	Students earn 1.00 SCASD approved Health credit.	0-.50	0-.50	0-.50	0-.50	1.00
Driver Education	0.25	Students earn .25 SCASD approved Driver Safety Education credit.		0.25			0.25
Electives	8.25	Students earn a total of 8.25 SCASD approved elective credits.	2.00 - 3.00	2.00- 3.00	2.00 - 3.00	2.00 - 3.00	8.25-12.00
Total Credits Required	25.00	Grades 09 - 12 cumulative academic plan					25.00 +

Entry Level Academic Eligibility for Participation in Pennsylvania High School Sports (PIAA) and National Collegiate Sports (NCAA and NAIA)

Pennsylvania Interscholastic Athletic Association (PIAA) Eligibility Requirements - www.piaa.org

To be eligible for interscholastic athletic competition a student must pass at least 4 full credit subjects, or the equivalent, during the previous grading period

National Collegiate Athletic Association (NCAA) Eligibility Requirements - www.ncaa.org - For current information please visit their website at <http://www.ncaa.org/student-athletes/future/eligibility-center>

National Association of Intercollegiate Athletics (NAIA) Academic Eligibility Requirements For current information please visit their website at www.naia.org

Ninth-Grade Student Scheduling

All ninth grade students must register for a minimum 6.5 credits and a maximum of 8 credits. Lunch and study halls are not considered as credit earning class periods. All ninth grade students will have the following:

English – 1 credit, **Social Studies** – 1 credit, **Science** – 1 credit, **Math** – 1 credit, **Physical Education** – 0.5 credits, **Health Education** – 0.5 credits.

- English classes are 1 credit. The English options for ninth grade students are:
Y206 ENGLISH 9 or Y207 ADVANCED ENGLISH 9
- Social Studies are 1 credit. The social studies options for ninth grade students are:
Y515 WORLD HISTORY 1 or Y516 ADVANCED WORLD HISTORY 1 or Y582 AP HUMAN GEOGRAPHY
- Science classes are 1 credit. The science options for ninth grade students are:
Y465 EARTH SYSTEMS SCIENCE 1 or Y473 ADVANCED EARTH SYSTEMS SCIENCE 1
- Math classes are 1 credit. The mathematics options for ninth grade students are:
Y388* CP ALGEBRA 1A & B (Y388 counts for one unit for NCAA core course requirements) or Y379 CP ALGEBRA 1
Y382 CP GEOMETRY (the prerequisite for this course is CP Algebra 1 and the recommendation of the CP Algebra 1 teacher)
Y383 GEOMETRY (the prerequisite for this course is Algebra 1 and the recommendation of the Algebra 1 teacher)
Y374 ADVANCED GEOMETRY (the prerequisite for this course is Advanced Algebra 1 and the recommendation of the eighth grade teacher)
Y375 ADVANCED ALGEBRA 2 (the prerequisite for this course is Advanced Geometry and the recommendation of the eighth grade teacher)
- The Physical Education course are:
S532 PHYS ED or V532 Virtual PHYS ED
- The Health course are:
S537 WELLNESS 9 or V537 Virtual WELLNESS

Community Service

In the State College Area School District students are *recommended to complete* **community service**. Although it is not a graduation requirement, in our school and community, we value and encourage service to others, so it is very possible that you have been involved in doing community service for years. Community service is also a valuable component for postsecondary planning purposes i.e. college applications, workforce opportunities, and study abroad. Therefore, we will include community service hours on all students' transcripts.

These hours can be earned at any time through high school beginning in June before 9th grade. For additional information and PDF forms, go to the high school home page, mouse over Students and then click on Community Service Requirements from the drop down menu.

Keystone Exams

Pennsylvania has required that all schools administer assessments called the Keystone Exams in the areas of Biology, Algebra I, and Literature. These exams are end-of-course exams designed to assess proficiency in those specific subject areas.

Students can meet the statewide graduation requirement by:

- Scoring proficient or advanced on each Keystone Exam - Algebra I, Literature, and Biology.
- Earning a satisfactory composite score on the Algebra I, Literature, and Biology Keystone Exams. The passing composite score is 4,452, approved on July 26, 2019.
- Earning a passing grade on the courses associated with each Keystone Exam, and satisfactorily complete one of the following: an alternative assessment (SAT, PSAT, ACT, ASVAB, Gold Level ACT WorkKeys), advanced coursework (AP, IB, concurrent enrollment courses), pre-apprenticeship, or acceptance in a 4-year nonprofit institution of higher education for college-level coursework.
- Earning a passing grade on the courses associated with each Keystone Exam, and pass the National Occupational Competency Testing Institute (NOCTI) or the National Institute of Metalworking Skills (NIMS) assessment in an approved Career and Technical Education concentration.
- Earning a passing grade on the courses associated with each Keystone Exam, and demonstrate readiness for postsecondary engagement through three pieces of evidence from the student's career portfolio aligned to student goals and career plan. Examples of evidence will include ACT WorkKeys, SAT Subject tests, AP, IB and concurrent coursework, higher education acceptance, community learning project, completion of an internship, externship or co-op or full-time employment.

Keystone Exam courses are identified in the Course Selection Guide with a keystone.



Graduation Planning Guide

Subject Area	9 th Grade	10 th Grade	11 th Grade	12 th Grade	Total Credits Earned	Total Credits Required
English						4.00
Social Studies						4.00
Science						3.00
Mathematics						3.00
Physical Education						1.50
Health Education						1.00
Driver Safety Education						.25
Electives **May be fulfilled by additional credits earned in any subject area						8.25
Total Credits Earned						25.00

Student Learning Communities

(Grades 10, 11 & 12)

State High Learning Communities (SLCs)

“No student left unknown”



Student Learning Communities (SLC)

Overview (*Grades 10, 11 & 12*)

Student Learning Communities (SLCs) are student-centered groups, comprised of both students and educators, that share common curricular and co-curricular interests. SLCs are determined by student curricular and co-curricular interests. In SLCs, students participate in relevant learning experiences and develop college and career readiness skills.

All students will select an SLC and are strongly encouraged to explore areas of interest that are contained therein. There will be opportunities for moving from one SLC to another during annual course selection.

Rationale

We know that students are more passionate about learning when they are connected to a community that helps them to grow and develop their interests. Therefore, the goal is to create increased opportunities for students to be aware of -- and ideally engage in - opportunities related to those interests.

At SCASD, we exhibit a passion for empowering every student – every day – with individualized opportunities for growth and success in a connected world. To this end, our focus is on the following areas:

- Significant academic and personal growth for every student
- College and career-ready graduates
- Achievement in arts, sports, clubs, and activities
- Safe and supported learners
- Demonstrate commitment to self, community, and global citizenship
- Cross curricular connections: project based learning
- More deliberate opportunities to help students plan for the remainder of high school, and beyond

Student Learning Communities

Arts & Humanities – Y901

Business & Communications – Y902

Health & Human Services – Y903

Science, Technology, Engineering, and Math (STEM) - Y904

Transition SLC - Y905

Arts & Humanities (Y901)

The Community for Arts and Humanities provides course offerings that include the disciplines of ancient and modern languages and cultures, literature, philosophy, visual and performing arts. These disciplines explore, share, and recreate expressions of the human experience. Students in this community will select an area of study relevant to their life interests.

SLC Courses

Animation	Advanced Rock Ensemble	Concert Choir	Guitar
AP Music Theory	Advanced Strings	Drawing 1	Guitar 2
Arabic (all levels)	Advanced World Religion	Drawing 2	Jewelry
Cinema Arts	AP Art History	Diversity & Social Justice	Journalism
Music Theory 1	AP Studio Art	French (all levels)	Latin (all levels)
9th Grade Band	Architectural Drafting & Design 1	German (all levels)	Master Studio
9th Grade Choir	Architectural Drafting & Design 2	IB Economics	Music Theory 1
9th Grade Orchestra	Advanced Architecture Draft & Design 3	IB Environmental Sys & Societies	Painting
Advanced Architectural Drafting & Design 3	Ceramics 1	IB Film SL	Photography
Advanced Architectural Drafting & Design 4	Ceramics 2	IB Theory of Knowledge	Printmaking
Advanced Band/Choir	Chinese (all levels)	IB Visual Arts HL	Rock Ensemble
Advanced Photography	Cinema Arts	IB World Religions	Sculpture/3D Art
	Commercial Design	General Art	Spanish (all levels)
	Concert Band	10th Grade Band/Choir	Symphony Orchestra

Business & Communications (Y902)

The Business and Communications Community is designed to attract students who have an interest in today's global careers, specifically in business, collaboration, and communications. Students in this community will engage in practical experiences that will help them acquire the skills, knowledge, and creativity to solve problems and add value to the society of the future.

SLC Courses

Advanced Accounting 1

Advanced Accounting 2

Advanced Stocks and Investments 2 /LL Fund

AP Statistics

Business Law 1

Business Law 2

Creative Advertising

Entertainment & Sports Marketing 1

Entertainment & Sports Marketing 2

Exploring Business

Hospitality Management

IB Business Management HL

IB Economics SL

IB Personal & Professional Skills

IB Theory of Knowledge

Leadership in Business

Marketing Essentials

Personal Finance

Retail Management

Roar Store Entrepreneurship

Sales

Statistics

Stocks and Investments 1

Supply Chain Management 1

Supply Chain Management 2

Virtual Social Media Marketing

Health & Human Services (Y903)

The Health and Human Services Community explores both mind and body wellness and the vast array of community resources designed to meet human needs. Students in this community may be interested in how to enhance the quality of life through topics such as: mental health, nutrition and fitness, public health, medicine, community services, education, and social justice.

SLC Courses

Adv Personal Training/Exercise Science/Sports Nutr
Baking 101
Clinical Observations
Culinary Arts 1
Culinary Arts 2
Culinary Arts 3
Culinary Arts 4
Early Child Education 1
Early Child Education 2

Fabulous Foods
Fashion and Technology
Fitness and Exercise Science
Health Care Evidence
Health Systems Professions
Hospitality Management
Health Professions Research Fellows
IB Sports Exercise & Health Science
IB Theory of Knowledge

Introduction to Sports Medicine
Language of Medicine
Leadership and Wellness
Lifeguarding
Nurse Aide Training
Senior Foods
Sports Nutrition and Safety
Understanding Young Children
Wellness for Life

Science, Technology, Engineering & Math (STEM) (Y904)

The Science, Technology, Engineering and Math (STEM) Community is for students who are interested in developing opportunities in established and emerging careers of the future. STEM students use the world's resources to design, build, and successfully create in a competitive, expansive global community.

SLC Courses

A+ Essentials/Technician	Advanced Zoology	IB Environmental Systems & Societies
Advanced Astronomy	Agricultural Mechanics & Technology	IB Sports Exercise & Science
Advanced Automotive Technology 4	Animal Sciences & Veterinary Science	IB Theory of Knowledge
Advanced Botany	Automotive Technology 1	Information Technology Entrepreneurship
Advanced Building Construction Technology	Automotive Technology 2	Materials Processing 1
Advanced Coding & Gaming Development	Automotive Technology 3	Materials Processing 2
Advanced Computer Engineering Graphics	Building Construction Technology Level 2	Materials Processing 3
Advanced Engineering Technology	Computer Engineering Graphics 1	Microsoft Server Administration
Advanced Genetics	Computer Engineering Graphics 2	Natural Resources
Advanced Geology	AP Computer Science Principles	Organic Chemistry
Advanced Meteorology	Digital and Analog Electrical Engineering	Plant Science
Advanced Molecular & Cellular Biology	Electronic Systems	Robotics
Advanced Network Cisco 1	Electronic Systems Engineering	Robotics Engineering
Advanced Network Cisco 2	Exploring Building Construction Technology	Security and Ethical Hacking
Advanced Oceanography	Exploring Engineering	Security +/Ethical Hacking
Advanced Programming Essentials in C++	Exploring the Wilds: Ecology of Centre Co	Statistics
Advanced Programming Essentials in C++ 2	Food Production	Survivor Science
Adv SQL	Forensic Science	Video Media Technology
Advanced Technology Research & Design	Foundations of Agriculture	

Transition SLC (Y905)

The transition SLC has been specifically designed to meet the needs of our students diagnosed with exceptionalities who have an Individual Education Plan and needs related to transition. Students in this learning community will have the opportunity to prepare themselves to be active, contributing members of their community as they transition into adulthood. Students will develop skills related to independent living, work readiness, job retention, and postsecondary preparedness.

SLC Courses

Arts (General Art, Ceramics, Painting, Drawing, Photography, Sculpture/3D Art)
Baking 101
Community Navigation
CTC Career Focused Courses (ECE, Ag Science, Sports, etc.)
Diversified Occupations
Fabulous Foods
Jewelry Making
Music (Choir, Band, Guitar, etc.)
Pathways
Senior Foods
Wellness for Life
Work Experience

SLC Supplemental Activities

Best Buddies
Community Service
Extracurricular Activities (Sports Teams, HACK Club, Gaming Club, Thespians, Marching Band, etc.)
Fitness Center Certification and Use
Goodwill Works Program
Job Shadowing
LifeLink Apartment
Special Olympics Sports
Work Experience

Course Offerings

In person Learning (S or Y) - traditional face-to-face course, can be 9-week, semester or year long

International Baccalaureate Programme (I) - please note that some courses require a two-year course sequence

Virtual (V) - 100% online via Canvas or via an outside vendor

Hybrid Courses (H) - instruction is delivered partially online and partially in a traditional classroom setting. Students will be scheduled to a section/classroom and expected to report to the classroom when in school. Attendance is taken by teacher for each hybrid course period. Typically offered blocks 4 and/or 8.

Before School Courses (B) - meet face to face before the start of the regular bell schedule from 7:45 am - 8:30am. Students have 10 minutes to transition to their first block.

Art & Design Program

The art program is for students who wish to: enjoy the creative growth that comes from working in art, continue to develop their skill in an art-related area, prepare for a career in the creative industry, and learn about art media and personal aesthetics.

In all art courses offered, student achievement is measured through observed growth in the processes of developing craft, persisting, envisioning, expressing, observing, reflecting, exploring, and understanding the art world.

Theme	9 th Grade	10 th Grade	11 th Grade	12 th Grade
2-D Arts	Drawing 1 Drawing 2* Painting* Printmaking*	Drawing 1 Drawing 2 Painting Printmaking	Drawing 1 Drawing 2 IB Visual Art HL Y1 Master Studio Painting Printmaking	AP Studio Art Drawing 1 Drawing 2 IB Visual Art HL Y2 Master Studio Painting Printmaking
3-D Arts	Ceramics 1 Ceramics 2* Jewelry Sculpture/3D Art	Ceramics 1 Ceramics 2 Jewelry Sculpture/3D Art	Ceramics 1 Ceramics 2 Jewelry Sculpture/3D Art	AP Studio Art Ceramics 1 Ceramics 2 Jewelry Sculpture/3D Art
Media Arts	Animation Cinema Arts Commercial Design Photography	Animation Adv Photography Cinema Arts Commercial Design Photography	Animation Adv Photography Cinema Arts Commercial Design IB Film SL Photography	Animation Adv Photography AP Studio Art Cinema Arts Commercial Design IB Film SL Photography
Art History	AP Art History	AP Art History	AP Art History	AP Art History

*Prerequisite would need to be completed prior to the course.

Art

Drawing 1

Course	Credits
S152	.5

Suggested Grade Level 09-12

Prerequisites:

This course is open to all students. During this course of study, students will gain the technical skills needed for the production of drawings. The students will gain an understanding of these techniques through the use of various materials and tools. The students will explore and discuss various artists and artwork to help better understand the concepts and techniques. This course satisfies the prerequisite requirement for the following: Drawing, Painting, and Printmaking.

Drawing 2

Course	Credits
S153	.5

Suggested Grade Level 09-12

Prerequisites: Successful completion of Drawing 1

This course is open to all students who have completed the Basic Drawing course and who wish to continue to refine their drawing styles by gaining a working knowledge of the technology, skills and techniques employed by drawing masters. Examples of masters' drawings are used for this purpose throughout the course. Students will use colored pencils, markers, pastels, conte and ink as they experience a concentrated study of landscape, figure and still-life color renderings. Students will select a drawing medium to produce a finished illustration. Students are required to keep sketchbooks and to submit homework assignments on a regular basis.

Painting

Course	Credits
S156	.5

Suggested Grade Level 09-12

Prerequisites: Successful completion of Drawing 1

This course is intended for students who have mastered basic skills required for drawing and who wish to gain a working knowledge of the terminology, skills and techniques employed in various painting media. Students will use watercolors and acrylics as they explore concepts of composition and color theory. Examples of masters' paintings are introduced which provide models of techniques students are employing in personal work. Both transparent and opaque media are used in the study of techniques. Students are required to keep sketchbooks and are expected to submit homework assignments on a weekly basis.

Printmaking

Course	Credits
S159	.5

Suggested Grade Level 10-12

Prerequisites: Successful completion of Drawing

This course is open to all students who have completed the Drawing course and desire to apply these skills to the exploration of printing techniques in art such as silk screening, relief printing, etching, and lithography. Students will gain a working knowledge of terminology, concepts and skills required for the production of prints in the stencil method, photo-silkscreen technique, linoleum relief, multiple color registration, plexiglass plate, zinc plate, acid etching, and offset printing. Students will produce images for posters, commercial art, T-shirt and textile designs and will be introduced to the history and commercial background of these mediums. Students will maintain a sketchbook throughout the length of the course.

Master Studio

Course	Credits
Y161	1

Suggested Grade Level 11-12

Prerequisites: One credit of Art and Design electives

This course is open to interested, industrious and capable art students who are preparing for future careers in art. Students are presented a wide selection of media and explore these in a studio atmosphere as they complete a portfolio and maintain a sketchbook. Students will explore realism, surrealism and abstraction in a drawing form and will be introduced to a unit on oil painting. Art history is taught throughout the course, and specific assignments focus on art themes, assigned readings from resources on contemporary art theories. Students must have completed one (1) credit of Art and Design electives for placement in the course. Students will maintain a weekly sketchbook and journal.



International
Baccalaureate
Programme



CTC Course



NCAA



Keystone



Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

Art

AP Studio Art

Course	Credits
Y162	1

Suggested Grade Level 12

Prerequisites: Two credits of Fine Art electives
Internal portfolio review and interview

This course is designed for highly motivated seniors who can work within the expectations of a first-year college level studio art class. Students will create a portfolio of work that may be submitted to the Advanced Placement Studio Art Program of the College Board. Students will develop a high level of skill in the use of color theory, expressive color, positive/negative space, repetitive pattern, design, line and tone, spatial illusion and portraiture. Students will develop both a concentration on a particular visual interest or concern and will investigate and explore approaches and media to broaden their repertoire of visual experiences. Students will be assigned readings from resources on contemporary art theories. Students must have completed two (2) credits of Fine Art electives and submit an internal portfolio of three works for review and placement in the course. Students will maintain a weekly sketchbook and journal.

Ceramics 1

Course	Credits
S166	.5

Suggested Grade Level 09-12

Prerequisites:

This course is intended for students who are interested in pursuing the mastery of skills involved in the production of wheel thrown and hand build clay objects. Examination of the aesthetics of ceramic works of art and the process of production provides the students with a framework for making critical judgments of clay objects, both as creators and consumers. Students must meet deadlines established for all projects and for oral or written assignments. All clay products must exhibit quality construction and finished decoration.

Ceramics 2

Course	Credits
S170	.5

Suggested Grade Level 10-12

Prerequisites: Successful completion of Ceramics 1

This course is designed for students who are interested in pursuing the mastery of advanced level skills involved in the production of wheel thrown and hand built clay objects. Studio practices are emphasized to encourage the independent design of a body of work.

Jewelry

Course	Credits
S164	.5

Suggested Grade Level 09-12

Prerequisites:

This course provides a sampling of a variety of materials, tools, and techniques used in the jewelry making process. We will focus on the process while exploring the history, evolution, and creativity of jewelry. Units of study will include Hemp Knotting, Handmade clay and paper beads, Metalwork and Wire, Fused glass, Enameling and Upcycled, Recycled and alternative materials used for wearable art.

Sculpture/3D Art

Course	Credits
S165	.5

Suggested Grade Level 9-12

Prerequisites:

This course offers an exploration of the materials, processes, and the design of 3-Dimensional artwork. Students will experience a wide variety of materials from clay to paper and fiber to glass, during units on wearable, ceramic, recycled, and public art. Individual and group projects are designed to teach planning and problem solving skills, an appreciation of various cultures and aesthetics as well as practical construction and sculptural skill. Students must maintain a sketchbook of weekly assignments to be completed throughout the course.



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Weighted Course



Alternating Year
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Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
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Art

Animation

Course	Credits	Suggested Grade Level
S172	.5	09-12

Prerequisites:

This course will introduce digital drawing utilizing Wacom tablets and various animation techniques including stop motion, Adobe Animate, and Blender. Character development, narrative qualities, texture, lighting, space, and timing will be explored around the central concept of artistic expression and visual communication design.

Cinema Arts

Course	Credits	Suggested Grade Level
S158	.5	10-12

Prerequisites:

This course may be repeated any number of times. This course is open to all students and provides them the opportunity to develop value judgments as filmmakers and film consumers through the exploration of basic film productions. Students produce short movies, conduct research on cinema related topics, and they are also expected to give informed critiques of films.

Comm Design

Course	Credits	Suggested Grade Level
S157	.5	09-12

Prerequisites:

This course is designed to provide all students with a foundation in art skills, as well as consumer understanding of art. Students will study various lettering styles and visual presentation techniques in order to develop original trademarks and logos. A study of the elements of design and the creative studio thinking process will be combined with the use of a variety of materials and software programs to explore the use of art in commercial settings.

Photography

Course	Credits	Suggested Grade Level
S168	.5	09-12

Prerequisites:

This course is designed as an elective for all students. Personal cameras are not required but encouraged for this course in which the students explore photographic theory, process and the history of photography. Photographic composition skills are stressed while the students learn to use a digital camera. Students learn to operate Adobe Photoshop at a basic level. The principles of design involved in making photographic images are emphasized. Students will maintain a portfolio of their photographs including the histories of those works as evidence of their technical and aesthetic growth.

Adv Photography

Course	Credits	Suggested Grade Level
Y169	1	10-12

Prerequisites: The successful completion of Photography.

This course is designed for students who wish to pursue the art form of photography well beyond the basics. Typical projects include photographic responses to open ended prompts, technical experimentation with shooting and editing processes, exploration of presentation methods, and class critique of completed works.



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Art

AP Art Hist

Course	Credits	Suggested Grade Level
Y150	1	10-12

Prerequisites:

AP Art History is a survey course of art forms throughout history and all parts of the world. Students will study Art History through class discussions, readings, slide viewing, videos, research and lecture. This course has no prerequisites, however, students must expect to be academically challenged. For success in Art History, students should be maintaining a “B” average or higher in English and Social Studies. An understanding of historical events that influenced the ideas, styles and techniques of artists as well as an ability to express this understanding in short answer and essay form is essential for a student to do well in the course and the AP exam. Evaluation will be based on quizzes, tests, and class participation and projects.

Students will be expected to complete all readings on time, take lecture notes, carry out individual and small group research projects, participate in class discussions and analyses, develop and refine essay writing skills, give class presentations and answer both objective and essay test questions.

IB Film SL

Course	Credits	Suggested Grade Level
I915	1	11-12

Prerequisites: Completion of Cinema Arts or online course

The IB Film course aims to develop students as proficient interpreters and makers of film texts. Through the study and analysis of film texts, and through practical exercises in film production, the film course develops students’ critical abilities and their appreciation of artistic, cultural, historical, and global perspectives in film. Students examine film concepts, theories, practices and ideas from multiple perspectives, challenging their own viewpoints and biases in order to understand and value those of others. IB Film students will work collaboratively to experiment with film and multimedia technology, acquiring the skills and creative competencies required to successfully communicate through the language of the medium. It focuses on the international and intercultural dynamic that triggers and sustains contemporary film, while fostering in students an appreciation of the development of film across time, space and culture. IB Film students are challenged to acquire and develop critical thinking, reflective analysis, and the imaginative synthesis that is achieved through practical engagement in the art, craft, and study of film.

IB Visual Arts HL Y1

Course	Credits	Suggested Grade Level
I916	1	11-12

Prerequisites:

The Visual Arts course, which is a two-year course, encourages students to challenge their own creative and cultural expectations and boundaries. It is a thought-provoking course in which students develop analytical skills in problem-solving and divergent thinking, while working towards technical proficiency and confidence as art-makers. In addition to exploring and comparing visual arts from different perspectives and in different contexts, students are expected to engage in, experiment with, and critically reflect upon a wide range of contemporary practices and media. The course is designed for students who want to go on to study visual arts in higher education as well as for those who are seeking lifelong enrichment through visual arts.

IB Visual Arts HL Y2

Course	Credits	Suggested Grade Level
I917	1	12

Prerequisites: Completion of I916 IB Visual Arts HL Y1

The Visual Arts course, which is a two-year course, encourages students to challenge their own creative and cultural expectations and boundaries. It is a thought-provoking course in which students develop analytical skills in problem-solving and divergent thinking, while working towards technical proficiency and confidence as art-makers. In addition to exploring and comparing visual arts from different perspectives and in different contexts, students are expected to engage in, experiment with, and critically reflect upon a wide range of contemporary practices and media. The course is designed for students who want to go on to study visual arts in higher education as well as for those who are seeking lifelong enrichment through visual arts.



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Driver Safety Education, Health Education, and Physical Education Programs

Mission Statement: The State College Health and Physical Education Department will provide a supportive environment for students to learn the skills necessary to define, demonstrate and value a healthy and active lifestyle.

Driver Safety Education

Driver Safety Education is a course which teaches our students how to drive responsibly. The major objective of the course is to make it clear to the students, that driving a car involves much more than simply operating controls. Students learn how to think behind the wheel, how to plan ahead and how to anticipate the actions of other roadway users. We also teach students how to control their vehicles in order to minimize risk to themselves and others. State and national rules of driving and safety are emphasized.

Health Education

Health Education, as an applied science, provides current information on a variety of health areas of interest and concern to our students. Its components include knowledge, attitudes, and behaviors. Students learn to differentiate between healthful and harmful behaviors and to recognize the effects of decisions. The course also provides opportunities to gain new scientific information, learn and practice goal setting and to make plans to achieve and maintain optimum health.

Physical Education

Physical Education is concerned with the social, mental, emotional, and physical development of each student. Our curriculum is fitness based, where students are encouraged to actively participate in every unit of instruction. Students are evaluated by teacher observation, goal setting, positive attitude, participation, sportsmanship and various written assessments.

Program	9 th Grade	10 th Grade	11 th Grade	12 th Grade
Driver Safety		Driver Safety Education	Driver Safety Education	Driver Safety Education
Health	Wellness 9	Wellness 9	Wellness for Life Sport Nutrition & Safety Leadership & Wellness IB Sports, Exercise & Health Sci	Wellness for Life Sport Nutrition & Safety Leadership & Wellness IB Sports, Exercise & Health Sci
Physical Education	Personal Wellness & Activity Physical Education 09	Personal Wellness & Activity Selective Physical Education Fitness & Exercise Science Lifeguarding Wake-up to Phys Ed Wake-up to Fitness Exercise Sci	Personal Wellness & Activity Selective Physical Education Fitness & Exercise Science Lifeguarding Wake-up to Phys Ed Fitness Exercise Sci IB Sports, Exercise & Health Sci	Personal Wellness & Activity Selective Physical Education Fitness & Exercise Science Lifeguarding Wake-up to Phys Ed Fitness Exercise Sci IB Sports, Exercise & Health Sci

Driver Safety Education

Driver Safety

Course	Credits	Suggested Grade Level
1536	.25	09-12
2536		
3536		
4536		

Prerequisites:

The objective of this classroom course, which is required of all students for graduation, is to provide theoretical information in preparation for driving. Students will learn about good driver behavior, management of risk, the PA Vehicle Code, physical, social and environmental influences on the driver, as well as the safe operation of an automobile. Students participate in activities such as small and large group discussions, lectures, demonstrations, readings, group and individual projects and audiovisual presentations.

This course meets every other day for a single marking period. Students will complete over 30 hours of instructional time during the course. It is recommended that this course be taken the semester of the student's 16th birthday. Successful completion of this course is a graduation requirement. Students who wish to take this course but cannot fit it into their schedules are urged to contact the counseling office to arrange an alternative plan.

*Virtual courses are NOT self-paced and are delivered through Canvas.



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Health

Wellness 9

Course	Credits	Suggested Grade Level
S537	.5	09
V537		

Prerequisites:

This course provides students with current information on an array of health topics of interest and concern to students. The course will emphasize intelligent decision making and the importance of taking responsibility for one's own health. Students will have the opportunity to make the connection between physical, mental, emotional and social aspects of health. Components of the course will include knowledge, attitudes, and behaviors using a variety of instructional strategies that are student-centered.

*Virtual courses are NOT self-paced and are delivered through Canvas.

Wellness for Life

Course	Credits	Suggested Grade Level
S543	.5	11-12
V543		

Prerequisites: Wellness 9 or equivalent

This course is designed to provide students with a skills-based approach to managing their stress and wellness. It offers an examination of one's stressors and how to find a balance of mental, emotional, physical and environmental stress management techniques for leading healthier and more productive lives. Course information is presented in a practical manner incorporating current health trends and concerns, life management skills and interdisciplinary learning strategies to achieving optimal wellness. An emphasis is placed on the importance of making responsible decisions that will lead to a higher quality of life.

*Virtual courses are NOT self-paced and are delivered through Canvas.

IB Sports, Exercise & Health SL

Course	Credits	Suggested Grade Level
I920	1	11-12

Prerequisites: Wellness & Bio 1

Sports, exercise and health science (SEHS) is an experimental science course combining academic study with practical and investigative skills. SEHS explores the science underpinning physical performance and provides the opportunity to apply these principles. The course incorporates the disciplines of anatomy and physiology, biomechanics, psychology, and nutrition. Students cover a range of core and option topics, and carry out practical (experimental) investigations in both laboratory and field settings. The course offers a deeper understanding of the issues related to sports, exercise, and health in the 21st century and addresses the international dimension and ethics related to both the individual and global context. SEHS units include anatomy, exercise physiology, energy systems, movement analysis, skill in sports, measurement and evaluation of human performance, psychology of sport, and physical activity and health. Students are required to participate in IB Assessments for this course.

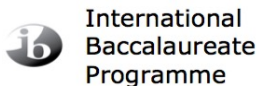
This course will count as a weighted grade, phys ed and health class for students enrolled in the IB Diploma Programme only. For all non-IB Diploma students, this course will count as a weighted grade elective course only.

Leadership & Wellness

Course	Credits	Suggested Grade Level
S547	.5	11-12

Prerequisites: Wellness 9 or equivalent

This course will address theories of leadership that when employed will empower leaders to advocate and advance a culture of wellness within their community or organization. The course is based on the belief that leaders can be developed and will emphasize skills such as goal setting, communication, and organization, along with the other health literacy skills. The structure of this class will consist of group activities, planning for school and community events, individual projects/goals, and the learning and practicing of leadership qualities/skills both as a group and as individuals.



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Health

Sport Nutrition & Safety

Course	Credits	Suggested Grade Level
S546	.5	11-12

Prerequisites: Wellness 9 or equivalent

Students will learn how Sport Nutrition can enhance and sustain performance for exercise. Topics of instruction will include development of nutritional meal plans, energy metabolism, essential nutrients, ergogenic aides (performance enhancers), fueling for various muscular strength/power and endurance activities, and weight management. A unit on safety will permit students to earn the basic life support CPR/AED, Healthcare Provider certification through the American Heart Association. Students are required to purchase a CPR pocket mask.



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Physical Education

Phys Ed 09

Course	Credits	Suggested Grade Level
S532 V532	.5	09 Prerequisites:

This 9th grade course focuses on learning skills necessary to become lifelong learners in a variety of activities in the area of personal health and wellness. Units of instruction include: field sports, volleyball, tennis, golf, aquatics, archery, personal fitness and introduction to a fitness center's cardio and strength training machines and stations. Upon the successful completion of the fitness certification assessment, students will be eligible to participate in the SouthSide Fitness Center programs which are offered after school and during the summer.

*Virtual courses are NOT self-paced and are delivered through Canvas.

Personal Wellness & Activity

Course	Credits	Suggested Grade Level
S531	.5	09-12 Prerequisites: Medical excuse from a physician.

An adapted, or modified, physical education program focused on providing the same opportunities to students with physical, cognitive, or psychological exceptionalities in the safest and least restrictive environment possible. An individualized program provides rehabilitation exercises and activities that are modified to meet the needs of the individual student. The program encourages success and exploration in physical, emotional, mental, and social health over the student's lifetime. Evaluation of student performance is based on the achievement of goals as agreed upon by the student and the learning team. This course is appropriate for students with a wide variety of exceptionalities.

Lifeguarding

Course	Credits	Suggested Grade Level
S545	.5	10-12 Prerequisites: Swimming skills test (see description below)

Interested in a great summer job or challenging career as a professional lifeguard? Through videos, group discussion and hands-on practice, students will have the opportunity to obtain certification in First Aid, CPR, AED and American Red Cross Lifeguarding. This course is a combination of classroom and water days. You must be at least 15 years of age and pass a prerequisite swim test which includes the ability to swim 300 yards continuously, tread water for 2 minutes with only the use of the legs, and surface dive to retrieve a 10 pound object off the bottom of the pool between 7-10 feet deep. This course credit will fulfill your physical education requirement for that school year or it may be used as an elective. There is a required fee for the certification and textbook. Scholarships available for need based students.

Select Phys Ed

Course	Credits	Suggested Grade Level
S530 V530 V535	.5	S530 10-12 / V530 - 10th / V535 - 11th & 12th Prerequisites: Wellness 9 or equivalent

The Selective Physical Education program provides a progressive curriculum for students in grades 10-12 to understand and experience a variety of activity choices. A fitness component is included throughout all activities for building, growing, and maintaining an active and healthy lifestyle. Students will have the opportunity to choose different activities throughout the course from the following strands:

1. LIFETIME ACTIVITIES: Activities may include yoga, dancing, mountain biking, martial arts fitness, and adventure (Activities may include wall climbing, high ropes courses, and belaying).
2. TEAM SPORTS: Activities may include lacrosse, basketball, softball, soccer, ultimate frisbee, volleyball, tchoukball, handball, and floor hockey.
3. DUAL / INDIVIDUAL SPORT: Activities may include tennis, badminton, pickle ball, archery, and fencing.
4. PERSONAL FITNESS: This strand based out of the SouthSide Fitness Center. Activities include instruction various types of strength training & cardiovascular exercises, program design, and goal setting. Students can obtain their SouthSide Fitness Center certification in this strand.

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Physical Education

Wake Up to Phys Ed

Course	Credits	Suggested Grade Level
B541	.5	Only 10-12 Prerequisites: Phys Ed 9

Wake Up to Phys Ed is a course designed for only 10th through 12th graders interested in improving their current fitness level. This class meets every school day from 7:45 am - 8:30 am in the High School North Gymnasium. Units offered may include personal fitness, team sports, individual/dual sports, adventure, and aquatics.

*Students are responsible for their own transportation to school.

Fitness & Exercise Sci

Course	Credits	Suggested Grade Level
S540 B540	.5	11,12 Prerequisites: Wellness 9, Phys Ed 09

Fitness and Exercise Science will provide students with a broad knowledge of exercise science and a foundation for understanding the role of science in exercise, athletic performance, and health promotion with a major focus on strength and sports conditioning. Content areas consist of basic exercise science, program design and implementation for various populations, advanced level strength training concepts, anatomy and physiology, injury prevention, client consultation, and fitness assessments. This course is designed to provide a sound knowledge for student-athletes and students interested and preparing for professional work in health promotion, fitness-related careers, physical and occupational therapy, kinesiology, and allied health careers.

*Students are responsible for their own transportation to school for B540 (Before School)

IB Sports, Exercise & Health SL

Course	Credits	Suggested Grade Level
I920	1	11-12 Prerequisites: Wellness & Bio 1

Sports, exercise and health science (SEHS) is an experimental science course combining academic study with practical and investigative skills. SEHS explores the science underpinning physical performance and provides the opportunity to apply these principles. The course incorporates the disciplines of anatomy and physiology, biomechanics, psychology, and nutrition. Students cover a range of core and option topics, and carry out practical (experimental) investigations in both laboratory and field settings. The course offers a deeper understanding of the issues related to sports, exercise, and health in the 21st century and addresses the international dimension and ethics related to both the individual and global context. SEHS units include anatomy, exercise physiology, energy systems, movement analysis, skill in sports, measurement and evaluation of human performance, psychology of sport, and physical activity and health. Students are required to participate in IB Assessments for this course.

This course will count as a weighted grade, phys ed and health class for students enrolled in the IB Diploma Programme only. For all non-IB Diploma students, this course will count as a weighted grade elective course only.



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English Program

The Secondary English Program offers a wide range of courses that provide opportunities for students to improve their skills in areas of reading, writing, listening, speaking, and research. The department offers both full-credit required courses, half-credit required courses (for seniors only), and a variety of electives in areas of theater and journalism.

The State College Area School District requires that all students take four years of English. Successful completion of full-credit required courses or two half-credit 12th grade required courses satisfies that requirement. Elective courses offer enrichment and reinforcement of specific language arts area but do not provide credit toward the English graduation requirement.

English Required Courses

Program	9 th Grade	10 th Grade	11 th Grade	12 th Grade
Advanced	Adv English 9	Adv English 10	Adv English 11 AP English Language & Composition IB Language & Literature HL	AP English Literature & Composition IB Language & Literature HL
College-Prep	English 9	English 10	CP English 11 or English 11	CP English 12 or English 12 <u>Or 2 half-credits:</u> College Writing Creative Writing Film & Media Studies Modern Classics Sci Fiction & Fantasy Lit Speech & Debate
ESL	English for English Language Learners 1A-5A, 1B-5B (ESL)			

English Elective Courses

Grades 09-12	Grades 10-12
Introduction to Theater or Journalism 1	Advanced Journalism or Journalism 2

English

Adv English 09



Course	Credits
Y207	1

Suggested Grade Level 09
Prerequisites:

Advanced English 9 is a course that prepares students for the rigorous demands of the advanced and AP programs in grades 10-12. Students are expected to be highly motivated, independent, show strong work habits, participate in class through discussion and presentations, and be dedicated to new challenges presented by unfamiliar readings and writings. Students develop their critical thinking skills through analysis and interpretation of literary genres from a variety of historical periods, focusing on their technical and aesthetic qualities as well as their intellectual merits. Student writing will consider literary texts from a variety of perspectives while concentrating on improving the content of their writing and polishing their writing style. Additionally, students build their reading and writing skills by studying vocabulary and grammar.

English 09



Course	Credits
Y206	1

Suggested Grade Level 09
Prerequisites:

English 9 builds on and expands the language arts skills developed in preceding grades. Students read novels, short stories, nonfiction, drama, and poetry and are introduced to Shakespeare and his works. Through extensive practice, students use the writing process to create sustained pieces of narrative, informative, and argumentative writing. Instruction in grammar, mechanics, usage, and style is integrated into the study of writing. Vocabulary will be studied in the context of literature and other supplementary materials. Short talks, presentations, and group discussions allow students to exhibit and practice their communication skills through a variety of interactions. Evaluation is based on tests and quizzes, projects, performances, and participation in class activities.

Adv English 10



Course	Credits
Y209	1

Suggested Grade Level 10
Prerequisites:

Students in Advanced English 10 explore the content in greater depth, move at a faster pace, prepare long-term assignments, and work toward more challenging tasks/standards. Expectations include commitment, investment in reading and writing, time-management skills, independent thinking, grade-level or above-average reading ability, above-average writing ability, analysis skills, and the willingness to take risks. Assessment is based on the quality of written assignments and tests, contributions to class discussion, presentations, participation in group work, and the timely submission of work. The pieces of literature that may be studied include both classic and contemporary texts. Students practice the writing process through a variety of writing experiences that are designed to improve their writing style. Grammar, usage, and vocabulary instruction are integrated into the study of literature and writing. Presentation experiences include both individual and group efforts. Students will prepare for the Literature Keystone Exam that is administered in the spring.

English 10



Course	Credits
Y208	1

Suggested Grade Level 10
Prerequisites:

The 10th grade English program continues to develop students' language arts skills. In reading instruction, critical analysis of literature helps students to improve their reading comprehension and appreciation for both classic and contemporary works. The writing component provides a variety of composition experiences as the students work through the writing process to produce narrative/creative, expository, and argumentative/persuasive texts. Practice in grammar, usage, and vocabulary is integrated into the study of literature and writing. Student achievement is assessed through tests, quizzes, writing, projects and presentations, and student progress overall. Students will prepare for the Literature Keystone Exam that is administered in the spring.



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English

Adv English 11



Course	Credits
Y202	1

Suggested Grade Level 11
Prerequisites:

Advanced English 11 is designed to foster the development of critical thinking skills and superior communicative abilities. Students improve their close reading and comprehension skills by applying active reading strategies to more challenging classical and contemporary American texts including novels, short stories, poetry, drama, nonfiction, media, and important speeches and documents. Students move beyond understanding to critically analyze and evaluate literature and other texts through a variety of assignments and activities including literary analysis essays, rhetorical analysis, argumentative writing, and student-led discussions. Writing instruction focuses on refining focus, content, and organizational skills and on improving style, while still based in the Toulmin Method of Argumentation. Using electronic and printed sources, students continue to gather, organize and incorporate information from both primary and secondary sources in their writing and presentations and use MLA formatting for documenting sources. Assessment is based on the quality of written assignments and tests, contributions to class discussion, presentations, participation in group work, and the timely submission of work. Units of study center around the concepts of: Rhetoric, Social Commentary, the American Dream, and Storytelling and Truth.

CP English 11



Course	Credits
Y201	1

Suggested Grade Level 11
Prerequisites:

Designed for juniors who plan to pursue a post-secondary education. Students read, analyze and interpret a variety of classic and contemporary American works including novels, short stories, drama, poetry, nonfiction and media. Through close reading, students will develop a sense of authorial intent and purpose to construct a deeper understanding of writer's craft. Critical thinking is nurtured through the construction of inferences and use of textual evidence to support reader responses. Writing instruction focuses on refining focus, content, and organizational skills and on improving style, while still based in the Toulmin Method of Argumentation. Using electronic and printed sources, students continue to gather, organize and incorporate information from both primary and secondary sources in their writing and presentations and use MLA formatting for documenting sources. Units of study center around the concepts of: Rhetoric, Social Commentary, the American Dream, and Storytelling and Truth. Students are expected to keep up with assigned reading, complete homework assignments, tests, and quizzes, construct original ideas, write extensively, and participate actively in class as these are keys to college preparedness.

English 11

Course	Credits
Y200	1

Suggested Grade Level 11
Prerequisites:

Designed for juniors who plan to enter careers in specialized skill areas or trades, as well as those who plan to continue their education in a two-year college or technical school, this course provides students with skill-based instruction in the language arts. Emphasis is placed on improving writing skills, literacy skills (with fiction and nonfiction texts), improving oral communication skills, and reinforcing study skills. Student achievement is assessed through objective quizzes and tests, individual and group projects, presentations, in-class work, and writing assignments.

CP English 12



Course	Credits
Y204	1

Suggested Grade Level 12
Prerequisites:

This course provides a strong background in the language arts for students who plan further academic education at a two- or four-year college or university. Students practice advanced writing techniques and critical thinking skills through assignments of varying lengths and types. Literary selections include fiction, nonfiction, poetry and drama. Core units of study include persuasive research writing, social commentary, making pivotal choices, understanding worldly advice and creating a legacy. Students continue to develop their research skills, literary analysis and persuasive writing, and are encouraged to develop a critical perspective on all forms of communication. Student achievement is assessed through tests, quizzes, oral and written communication, and active participation in group work and class discussion.



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English

English 12

Course	Credits
Y203	1

Suggested Grade Level 12
Prerequisites:

Designed for seniors who plan to enter careers in specialized skill areas or trades, as well as those who plan to continue their education in a two-year college or technical school, this course continues to build on the skills of reading, writing, speaking, and listening provided in English 11. Emphasis is on improving writing skills, literacy skills (both fiction and nonfiction), improving oral communication skills, and reinforcing study skills. Student achievement is assessed through tests and quizzes, individual and group projects and presentations, in-class work, and writing assignments.

AP English Lang



Course	Credits
Y222	1

Suggested Grade Level 11
Prerequisites:

An option recommended for highly motivated juniors, the Advanced Placement English Language and Composition course is designed to help students become skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts and to become skilled writers who can compose for a variety of purposes. Students learn to analyze and evaluate the audience, purpose, and rhetorical strategies used by a wide variety of authors and apply those strategies to their own writing as they compose argumentative, expository and analytical essays. Students should expect at least one hour of homework in the evening. This course prepares students for the Advanced Placement English Language and Composition Examination given in May. A successful score of three (3) or higher on this exam can earn a student advanced credit at some colleges and universities.

AP English Lit



Course	Credits
Y205	1

Suggested Grade Level 12
Prerequisites:

As the culminating course in the advanced English program, Advanced Placement English Literature and Composition offers highly motivated seniors with exceptional language arts skills a college-level course in the classics. Students analyze poetry, plays, essays and novels through class discussion of structure, characterization, theme, and style. The student is expected to demonstrate a high level of skill in critical thinking, discussion, and expository and analytical writing as well as in other evaluations, including class projects and oral presentations.

Approximately one hour of homework per night is normal. This course prepares students for the Advanced Placement English Literature and Composition Examination as well as college courses. A successful score on this exam can earn a student three (3) to six (6) college credits.

IB Lang A: Lang & Lit HL Y1



Course	Credits
I918	1

Suggested Grade Level 11
Prerequisites: English 9/Adv English 9 and English 10/Adv English 10

This two-year higher level course introduces the critical study and interpretation of written and spoken texts from a wide range of literary and non literary genres. The formal analysis of texts is supplemented by awareness that meaning is not fixed but can change in respect to contexts of production and consumption. The course is organized into four parts, each focused on the study of either literary or non-literary texts. Together, the four parts of the course allow the student to explore the English language through its cultural development and use, its media forms and functions, and its literature. Students develop skills of literary and textual analysis, and also the ability to present their ideas effectively. A key aim is the development of critical literacy. There are four IB assessments: Paper 1, Paper 2, Individual Oral, and HL essay. This is a required course for students seeking an IB Diploma (DP Programme).



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English

IB Lang A: Lang & Lit HL Y2

Course	Credits	Suggested Grade Level
I919	1	12

Prerequisites: Completion of I918 IB Lang A: Lang & Lit HL Y1

This two-year higher level course introduces the critical study and interpretation of written and spoken texts from a wide range of literary and non literary genres. The formal analysis of texts is supplemented by awareness that meaning is not fixed but can change in respect to contexts of production and consumption. The course is organized into four parts, each focused on the study of either literary or non-literary texts. Together, the four parts of the course allow the student to explore the English language through its cultural development and use, its media forms and functions, and its literature. Students develop skills of literary and textual analysis, and also the ability to present their ideas effectively. A key aim is the development of critical literacy. There are four IB assessments: Paper 1, Paper 2, Individual Oral, and HL essay. This is a required course for students seeking an IB Diploma (DP Programme).

College Writing CP Eng

Course	Credits	Suggested Grade Level
S233	.5	12

Prerequisites:

College Writing provides .5 English credit for seniors only, introduces students to the critical writing, research writing process, and stylistic writing tools they will utilize at the college level. Students will read and discuss model essays; write logical, well-organized essays using a variety of developmental patterns; engage in peer-review sessions; and learn to locate, evaluate, and incorporate source material into scholarly essays adhering to MLA &/or APA formatting. The structure of the class will include mini-lessons, workshop and application, group work and individual conferences. This is a college preparatory level course.

Creative Writing CP Eng

Course	Credits	Suggested Grade Level
S219	.5	12

Prerequisites:

Creative Writing provides .5 English credit for seniors only. Students who take this course produce works that explore the elements of two genres: fiction and poetry. Models from literary tradition are studied as inspiration for the students' own literary efforts. Students are encouraged to publish their work and to enter their work in creative writing contests. This is a college preparatory level course.

Film & Media St CP Eng

Course	Credits	Suggested Grade Level
S224	.5	12

Prerequisites:

This class provides .5 credit for seniors only and serves as an introduction to the critical study of media and its influence on society. Media in all of its forms is a primary source of information for young people today. Understanding this and thinking critically about media messages are essential skills in a consumer-based society such as ours. Students come to a more robust understanding of the role that media plays in the construction of our identities and our worlds through the reading of both fiction and nonfiction texts; the viewing of documentaries based around the media; the writing of research papers, literary analysis, synthesis papers, reflective papers, and creative works, and the creation of their own media message in project-based form. This is a college preparatory level course.

Modern Classics CP Eng

Course	Credits	Suggested Grade Level
S225	.5	12

Prerequisites:

This course provides .5 English credit for seniors only. It explores the nature of modern texts and how they respond to modern issues. How can literature make meaning in regard to culture and current events? To what extent does literature reflect or shape our world? How do we know quality texts when we read them? Students will read and write about a variety of modern works—fiction, nonfiction, poetry, plays, or essays and evaluate the elements distinguishing them as classics. In addition to leading class discussions, creating and sharing presentations, students will write argumentative and analytical pieces and use research to support their ideas. This is a college preparatory level course.



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Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

English

Sci Fi/Fantasy CP Eng

Course	Credits	Suggested Grade Level
S226	.5	12

Prerequisites:

This course provides .5 English credit for seniors only and will examine science fiction and fantasy across multiple media, including literature, film, television, comics, and games. Students will survey the history of science fiction and fantasy and trace the way each creator has responded to changing social conditions, including the fears and anxieties that surround advancements in science and technology. Students are expected to read and respond critically to a variety of texts in order to deepen their understanding of these genres and their broad cultural impact. This is a college preparatory level course.

Speech & Debate CP Eng

Course	Credits	Suggested Grade Level
S210	.5	12

Prerequisites:

This course provides .5 credit toward the English graduation requirement for seniors only and offers students the opportunity to improve their oral presentation, critical thinking, research, and argumentation skills through a variety of formal and informal speaking experiences. Students will gain instruction in the elements of speechwriting and delivery that most effectively convey accurate and engaging meaning to an audience. Students will incorporate verbal and visual communication skills to enhance the impact of a presentation on an audience. Students will sharpen argumentation skills as they prepare persuasive messages and engage in a variety of debate experiences. The topics and activities of the course are adjusted to the needs and interests of the students who enroll in the class. Evaluations are based upon the student's degree of participation and preparation and the quality of speeches and debate materials. This is a college preparatory level course.

Intr To Theater

Course	Credits	Suggested Grade Level
S212	.5	09-12

Prerequisites:

An elective course, which does not provide credit toward the English graduation requirement, Introduction to Theater provides motivated students with an active, participatory introduction to the theatrical arts. Through hands-on projects and lectures, students learn the basics of set design, stage lighting, costumes, props, make-up, acting, script analysis, and directing. Class activities include projects in each of the technical areas of the theater and guest speakers and field trips. Evaluation is based on participation, skill development and individual and group projects.

Journalism 1

Course	Credits	Suggested Grade Level
S213	.5	09-12

Prerequisites:

Designed for self-motivated students who wish to work on high school publications, this elective credit course is a prerequisite for editorial positions on the print newspaper, online newspaper, yearbook, and broadcast staffs. Through an apprenticeship model, students will learn basic skills of interviewing, journalistic writing, photography, editing, and layout. Students will practice these skills as they participate in publication and broadcast activities. Opportunities are provided to study the history of news media, current media practices, and media ethics and law. Evaluation is based on published work, use of class time and participation in all varieties of media. This course does not provide credit toward the English graduation requirement. Students may take it twice for additional elective credit.



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Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

English

Journalism 2

Course	Credits
Y214	1

Suggested Grade Level 10-12

Prerequisites: Successful completion of Journalism 1 and the recommendation of the Journalism 1 teacher.

Journalism 2 provides experience in the practical applications of scholastic journalism including newspaper, broadcasting, and yearbook. Students will become new leaders in the apprenticeship model. Instruction and activities reinforce ethical journalistic practice, increase student responsibility and incentive, and develop skills in desktop publishing, specialized journalistic writing, layout and design, photography, and advertising in accordance with recognized scholastic journalistic standards. Students take this elective credit course (which does not provide credit toward the English graduation requirement) daily for the full year.

Adv Journ 2

Course	Credits
Y216	1

Suggested Grade Level 10-12

Prerequisites: Successful completion of Journalism 2 and the recommendation of the Journalism 2 teacher (in some exceptional cases, a Journalism 1 student may be recommended for this course); in addition, successful completion of one of the following courses: Creative Advertising Commercial Design, Computer Graphics 1, or Video Media Technology.

Advanced Journalism 2 students continue to develop the skills learned in Journalism 2 as they work to produce the newspaper, online newspaper, yearbook and broadcast. Students will act as experienced leaders in the apprenticeship model, providing leadership by taking more responsibility for managing and editing others' work in addition to producing their own. Students take this elective credit course (which does not provide credit toward the English graduation requirement) for the full credit.



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Family & Consumer Sciences Program

The mission of the Family and Consumer Sciences Program is, “To manage with reason and creativity the challenges across the lifespan of living and working in a global society.” -*Task Force-Future Directions in Family and Consumer Sciences*

“Family and consumer sciences (FCS) is the comprehensive body of skills, research, and knowledge that helps people make informed decisions about their well being, relationships, and resources to achieve optimal quality of life. The field represents many areas, including human development, personal and family finance, housing and interior design, food science, nutrition and wellness, textiles and apparel, and consumer issues.” -*American Association of Family and Consumer Sciences*

Student achievement is measured by observed growth, work habits, problem-solving ability, cooperation and understanding of others classroom activities, and project work.

Program	9th Grade	10th Grade	11th Grade	12th Grade
Clothing & Textiles	Fashion & Technology	Fashion & Technology	Fashion & Technology	Fashion & Technology
Foods & Nutrition	Baking 101 Fabulous Foods	Baking 101 Fabulous Foods	Baking 101 Fabulous Foods	Baking 101 Fabulous Foods Senior Foods
Human Development	Understanding Young Children	Understanding Young Children	Relationships Understanding Young Children	Relationships Understanding Young Children

Family and Consumer Sciences

Baking 101

Course	Credits	Suggested Grade Level
S251	.5	09-12

Prerequisites:

Everything you want and need to know about baking delicious cakes, pastry, cookies and breads. This course requires no previous experience. Baking several times a week ensures that you will know all the basics to move on to more advanced bakery products. Highlights include friendly competition bake-offs, construction of a Gingerbread house, and a final Baker's Showcase.

Fabulous Foods

Course	Credits	Suggested Grade Level
S263	.5	09-12

Prerequisites:

Students gave this course its name! Students will discover the Fabulous Foods that were introduced into American cuisine through a tasting timeline. The course will tour through the Fabulous Foods of the regions of America and the world.

Highlights include Italian, French and Thai cuisine.

This course will cover a variety of skills, techniques, and culinary wonders in each unit. Weekly meals, demonstrations and regional traditions will transform the palate of each student as if they were seasoned world travelers.

Fashion & Tech

Course	Credits	Suggested Grade Level
S257	.5	09-12

Prerequisites:

Fashion and Technology is a course designed to immerse you in fashion and design. Immediately you will begin with color and design theory. Construction techniques are taught as you make the projects of your choice. The latest technology is included in machines including sergers and embroidery machines.

The topics included are what is best for you and your wardrobe, buying it right, knowing before sewing, and the technology involved in starting to sew and use textiles. You are required to furnish materials for the projects you choose to complete.

Fashion and Technology can be elected more than once as a different set of skills are learned each time the course is elected.

Relationships

Course	Credits	Suggested Grade Level
S253	.5	11-12

Prerequisites: Required grade level status: 11th or 12th grade

Have you ever wondered what brings people together? Or do you want to know what, why and how good relationships are formed and maintained? This course is for students who are interested in learning the psychology of love and relationships. Relationships leads you from meeting to dating, through commitment to planning the wedding. Holding a mock wedding ceremony and reception are often options chosen by the class. Also explored in the course are: living independently, becoming a family, making adjustments when problems arise, divorce and dealing with blended families. Other focus points include finding, acquiring and using resources. This is a course for eleventh and twelfth grade students.



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Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

Family and Consumer Sciences

Senior Foods

Course	Credits	Suggested Grade Level
S262	.5	12

Prerequisites: Required grade level status: 12th grade

The course you've been waiting to take, Senior Foods, is a course in foods and cooking for life. The course includes labs and demonstrations in the following units of study: breads, soups, pasta, pastry, salads, vegetables, poultry, meats and convenience cooking. Basic preparation skills, microwave cooking and the use of small appliances are emphasized. Several field trips are taken throughout the course. Students prepare recipes from each unit. Examples of recipes selected are: pizza, pasta, apple pie, specialty pies, fajitas, stir-fry dishes and more. A popular feature of the course is a unit where students use convenience products to prepare many different parts of the meal. Recipes are updated to reflect current food trends and student tastes.

Uychildren

Course	Credits	Suggested Grade Level
S264	.5	09-12

Prerequisites:

Understanding Young Children is a course that combines child development and parenting. Through the use of simulations such as the Real Care Infants, and actual preschool experience in the Playroom program, students observe and participate in many interactions. Learning to communicate with young children and respond in positive, supportive ways to their needs is stressed throughout the course. Students enhance the play and learning of the young child through planning and leading activities in art, music, literature, foods, games, science, math and crafts.

High school students who enroll in this course will be working with young children. Thus, they are required to have a current health record, proof of recent TB screening and adequate immune status, these requirements must be met by the student at the beginning of the coursework. All paperwork must be submitted to the teacher or CTC office.



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Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

Mathematics Program

The State College Area School District has a comprehensive mathematics program for students with varying interests, backgrounds, and aptitudes in mathematics. There are Advanced and College-Prep course sequences. All course sequences are designed to prepare students for continuing education after high school.

Each course sequence includes experiences with Common-Core Mathematics strands of Number and Quantity, Algebra, Functions, Modeling, Geometry, Statistics and Probability. College-Prep courses cover all state-required competencies. Advanced courses are more mathematically rigorous, including rich experiences with reasoning, proof and mathematical modeling.

All students are required to take three years of high school mathematics to graduate, but it is strongly recommended that students study mathematics in every year of high school. Student will take the Algebra 1 Keystone Exam toward the end of the course when enrolled in CP Algebra 1 or CP Algebra 1B.

Mathematics Course Sequence

Program		7 th Grade		8 th Grade	
Advanced		Advanced Math 7		Advanced Algebra 1	
College-Prep		Introduction to Algebra & Geometry 7		Algebra & Geometry 8	
Program	9 th Grade	10 th Grade	11 th Grade		12 th Grade
Advanced	Advanced Geometry	Advanced Algebra 2	Advanced Honors Precalculus Advanced Precalculus IB Math: Applications & Interpretations SL IB Math: Analysis & Approaches HL		AP Calculus BC AP Calculus AB IB Math: Applications & Interpretations SL IB Math: Analysis & Approaches HL
College-Prep	CP Algebra 1 or CP Algebra 1A & B	CP Geometry Geometry	Algebra 2 CP Algebra 2 IB Math: Applications & Interpretations SL		Functions & Trigonometry IB Math: Applications & Interpretations SL Precalculus

Electives Available in Grades 11 & 12 to All Students Who Meet Prerequisites:

AP Computer Science	Statistics	Introductory Calculus
Advanced Topics in Mathematics	AP Statistics	

Mathematics

Adv Geometry



Course Credits
Y374 1

Suggested Grade Level 09
Prerequisites: Advanced Algebra 1

The general goals of this course are to develop an in-depth understanding of geometric concepts and use logical reasoning skills. The topics to be covered include properties of angles, lines, polygons and congruence, similarity, coordinate geometry, justification and proof, right triangles, vectors, circles, two-dimensional and three-dimensional shapes and figures. There is a substantial emphasis on independent proof writing. Significant algebra skills including factoring polynomials, solving quadratic equations by factoring, solving one-variable equations, simplifying expressions, and writing and solving systems of linear equations will be used to work problems in most units.

CP Algebra 1



Course Credits
Y379 1

Suggested Grade Level 09
Prerequisites:

Linear equations, functions, and inequalities are the primary focus of the first half of the course, with emphasis on solving equations and inequalities graphically and algebraically. The concepts of linear equations and inequalities are extended to systems of linear equations and inequalities. A study of absolute value equations and inequalities extends conceptions and skills of linear equations and inequalities. Equivalent expressions involving exponents, polynomials, rationals, and radicals are the primary focus of the second half of the course, with an emphasis on creating simplified equivalent forms using properties of real numbers. The course concludes with a statistical unit focused on analyzing data using plots and graphs.

CP Algebra 1A&B



Course Credits
Y388 2

Suggested Grade Level 09
Prerequisites:

Linear equations, functions, and inequalities are the primary focus of this course, with emphasis on solving equations and inequalities graphically and algebraically. The concepts of linear equations and inequalities are extended to systems of linear equations and inequalities. A study of absolute value equations and inequalities extends conceptions and skills of linear equations and inequalities. Equivalent expressions involving exponents, polynomials, rationals, and radicals are another primary focus of this course, with an emphasis on creating simplified equivalent forms using properties of real numbers. The course concludes with a statistical unit focused on analyzing data using plots and graphs.

This course meets daily. *Counts for one unit for NCAA Corp. requirements.

Math Seminar 1

Course Credits
Y342 1

Suggested Grade Level 09
Prerequisites:

This course is designed to strengthen students' understanding of basic math concepts. Students receive the benefits of individualized instruction, ample practice, immediate feedback and coaching. Topics that will be covered are: multiplication, division, fractions, and decimals.



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Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

Mathematics

Math Seminar 2

Course	Credits	Suggested Grade Level
Y343	1	09-10

Prerequisites:

This course is designed to strengthen students' understanding of basic math and pre-algebra skills through the use of a sequenced and focused instruction process. This process and the course curriculum helps students make connections to high-interest themes and problems, while learning to think algebraically.

Topics that will be covered include: consumer and life skills topics, whole numbers and operations, fractions, decimals and percent, integers and rational numbers, ratios and proportions, linear relationships, functions, graphs in a coordinate plane, and systems of equations.

Adv Algebra 2



Course	Credits	Suggested Grade Level
Y375	1	09-10

Prerequisites: Completion of, or concurrent enrollment in, College-Prep Geometry or Advanced Geometry

The primary focus of this course is to develop algebraic skills and apply them to non-linear contextual problems. This course is an in-depth study of the properties and sets of real numbers through abstract algebra, linear equations of one and two variables, matrices and systems of equations, polynomial, rational, quadratic, exponential, logarithmic, and radical functions, radicals and rational exponents, conic sections and probability.

CP Algebra 2



Course	Credits	Suggested Grade Level
Y380 H380	1	10-11

Prerequisites: Completion of or concurrent enrollment in College-Prep Geometry.

The primary focus of this course is to further develop algebraic skills and apply them to contextual problems. This course extends Algebra 1 concepts and includes a study of the following topics: quadratic functions, polynomial functions, radical functions and rational exponents, exponential and logarithmic functions, rational functions, and probability.

CP Geometry



Course	Credits	Suggested Grade Level
Y382	1	09-10

Prerequisites: College-Prep Algebra 1

The general goals of this course are to develop an understanding of geometric concepts and use logical reasoning skills. The topics to be covered include properties of angles, lines, polygons and congruence, similarity, coordinate geometry, justification and proof, right triangles, circles, two-dimensional and three-dimensional shapes and figures.

Geometry

Course	Credits	Suggested Grade Level
Y383	1	10

Prerequisites: CP Algebra 1B

The general goal of this course is to develop a working knowledge of geometric principles and logical thinking skills necessary to use these principles. This course is designed for students to be actively engaged through the use of hands on activities. Students will work in cooperative groups frequently to develop an understanding of geometric principles and to develop the ability to create a plan to find solutions to problems. The topics to be covered include properties of angles, lines, polygons and congruence, similarity, coordinate geometry, justification and proof, right triangles, circles, two-dimensional and three-dimensional shapes and figures.



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Keystone



Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

Mathematics

Adv Hon Precalc

Course Credits Suggested Grade Level 10-11
Y359 1 Prerequisites: Advanced Geometry and Advanced Algebra 2

A rigorous treatment of different families of functions forms the basis of study for the course. An in-depth study of polynomial, rational, exponential, logarithmic, and trigonometric functions consists of connecting symbolic, graphical, and contextualized representations of functions. The concept of function is extended to sequences and series, and counting and probability. The second half of the course focuses on trigonometric functions, including the unit circle, triangle trigonometry, and analytical trigonometric identities. Trigonometric functions are conceptualized in the rectangular coordinate system, polar coordinate system, and complex coordinate system. Trigonometric functions are extended and applied to a study of parametric equations. Properties of functions and expressions will be derived and proved throughout the course.

Adv Precalculus

Course Credits Suggested Grade Level 10-11
Y358 1 Prerequisites: Advanced Geometry and Advanced Algebra 2

This course consists of the study of topics in mathematics that prepare students for Calculus. These topics include: families of functions, discrete math, and trigonometry. The analysis of quadratic, polynomial, rational, exponential, logarithmic, and trigonometric functions connects symbolic, graphical, and contextualized representations of functions. Discrete math topics to be explored are counting, probability, sequences, and series. An abstract and contextual understanding of right and oblique triangle trigonometry, radian measure, the unit circle, and polar coordinates will be developed. Identities and properties of trigonometric functions will be explored and applied to solve problems. In addition to an algorithmic understanding of concepts, there is an emphasis on analysis and synthesis of learned concepts.

Algebra 2

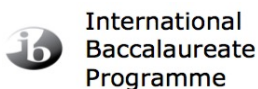
Course Credits Suggested Grade Level 11
Y384 1 Prerequisites: Geometry

The primary focus of this course is to further develop algebraic skills and apply them to real-world problems. This course extends Algebra 1 concepts through the use of experiments and explorations. The course includes a study of the following topics: linear functions in context, quadratic functions, polynomial functions, radical functions and rational exponents, exponential functions, and probability. This course emphasizes a graphical understanding of concepts utilizing available technology.

IB Math Analysis & Appr HL Y1

Course Credits Suggested Grade Level 11-12
I927 1 Prerequisites: Adv Honors Precalculus

Mathematics: Analysis and Approaches HL, a two-year course, is appropriate for students who enjoy developing their mathematics to become fluent in the construction of mathematical arguments and develop strong skills in mathematical thinking. They will also be fascinated by exploring real and abstract applications of these ideas, with and without the use of technology. Students who take Mathematics: Analysis and Approaches will be those who enjoy the thrill of mathematical problem solving and generalization. This subject is aimed at students who will go on to study subjects with substantial mathematics content such as mathematics itself, engineering, physical sciences, or economics for example. Mathematics: Analysis and Approaches HL includes all of the content of the SL course and substantial additional and more complex content in number, algebra, functions, geometry, trigonometry, statistics, probability, and calculus. Students will complete investigation, inquiry and problem-solving activities including completing an assessment which enables students to undertake a piece of research which interests them and models the type of mathematical activity undertaken in the modern world.



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Weighted Course



Alternating Year Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

Mathematics

IB Math Applic & Interp SL Y1

Course	Credits	Suggested Grade Level
I921	1	11-12

Prerequisites: CP Algebra 1 & CP Geometry

Mathematics: Applications and Interpretations SL, a two-year course, is appropriate for students who are interested in developing their mathematics for describing our world and solving practical problems. They will also be interested in harnessing the power of technology alongside exploring mathematical models. Students who take Mathematics: Applications and Interpretations will be those who enjoy mathematics best when seen in a practical context. This subject is aimed at students who will go on to study subjects such as social sciences, natural sciences, statistics, business, some economics, psychology, and design, for example. Content will include the study of topics in number, algebra, functions, geometry, trigonometry, statistics, probability, and calculus. Students will complete investigation, inquiry and problem-solving activities including completing an assessment which enables students to undertake a piece of research which interests them and models the type of mathematical activity undertaken in the modern world.

Math Seminar 3

Course	Credits	Suggested Grade Level
Y344	1	11

Prerequisites:

This course is designed to strengthen students' understanding of basic math concepts and provide instruction in consumer and life skill math topics. Topics that will be covered are banking, wages and overtime, paying at restaurants, grocery shopping, shopping with percent discounts and sales tax, and CATA bus routes.

AP Calc AB

Course	Credits	Suggested Grade Level
Y361	1	11-12

Prerequisites: Advanced Precalculus or the recommendation of the Precalculus teacher

The AB Calculus course is a course in the calculus of functions of a single variable. It is a college-level mathematics course for which many colleges grant advanced placement credit. All students will be encouraged to take the Advanced Placement Mathematics examination in May. The course includes the study of limits using multiple approaches, how to apply limits to graphs, and the study of rates of change in context. The course also includes the study of differentiation including the derivative rules, approximating a derivative, and applying the derivative in real-world problem situations. The course also includes integration including accumulated change as well as application problems with area, volume and motion. Lastly, the course includes some elementary differential equations. A graphics approach to the subject will be employed, and graphics calculators will be used for various topics in the class.

AP Calc BC

Course	Credits	Suggested Grade Level
Y362	1	11-12

Prerequisites: Advanced Honors Precalculus or the recommendation of the Advanced Precalculus teacher

The BC Calculus course is an intensive course in the differential and integral calculus of functions of a single variable. It is a college-level mathematics course for which most colleges grant advanced placement and as many as eight credits. All students will be encouraged to take the Advanced Placement Mathematics examination in May.

The course includes the study of limits using multiple approaches, how to apply limits to graphs, and the study of rates of change in context. The course also includes the study of differentiation including the derivative rules, approximating a derivative, and applying the derivative in real-world problem situations. The course also includes integration including accumulated change as well as application problems with area, volume and motion. The course also includes infinite series including convergence, divergence, Maclaurin and Taylor series and using series to make approximations. Lastly, the course includes vectors, parametrics, polar graphs and some elementary differential equations. A graphics approach to the subject will be employed, and graphics calculators will be used for various topics in the class.



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Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

Mathematics

Function & Trig

Course	Credits	Suggested Grade Level
Y354	1	12

Prerequisites: Algebra 2 or CP Algebra 2

This course focuses on applying and expanding upon previously acquired knowledge of functions to analyze data, make predictions and solve contextual problems. The analysis of linear, quadratic, exponential, logarithmic and trigonometric functions connects symbolic and graphical representations to applied problems. Emphasis is placed on using technology to create, use and analyze results from models.

Additionally, the course will extend previous trigonometry concepts from geometry to radian measure and the unit circle. Problems involving the use of both right and oblique triangle trigonometry will be explored in context.

IB Math Analysis & Appr HL Y2

Course	Credits	Suggested Grade Level
I928	1	12

Prerequisites: Completion of IB Math Analysis & Appr HL Y1

Mathematics: Analysis and Approaches HL, a two-year course, is appropriate for students who enjoy developing their mathematics to become fluent in the construction of mathematical arguments and develop strong skills in mathematical thinking. They will also be fascinated by exploring real and abstract applications of these ideas, with and without the use of technology. Students who take Mathematics: Analysis and Approaches will be those who enjoy the thrill of mathematical problem solving and generalization. This subject is aimed at students who will go on to study subjects with substantial mathematics content such as mathematics itself, engineering, physical sciences, or economics for example. Mathematics: Analysis and Approaches HL includes all of the content of the SL course and substantial additional and more complex content in number, algebra, functions, geometry, trigonometry, statistics, probability, and calculus. Students will complete investigation, inquiry and problem-solving activities including completing an assessment which enables students to undertake a piece of research which interests them and models the type of mathematical activity undertaken in the modern world.

IB Math Applic & Interp SL Y2

Course	Credits	Suggested Grade Level
I922	1	12

Prerequisites: Completion of IB Math Applic & Interp SL Y1

Mathematics: Applications and Interpretations SL, a two-year course, is appropriate for students who are interested in developing their mathematics for describing our world and solving practical problems. They will also be interested in harnessing the power of technology alongside exploring mathematical models. Students who take Mathematics: Applications and Interpretations will be those who enjoy mathematics best when seen in a practical context. This subject is aimed at students who will go on to study subjects such as social sciences, natural sciences, statistics, business, some economics, psychology, and design, for example. Content will include the study of topics in number, algebra, functions, geometry, trigonometry, statistics, probability, and calculus. Students will complete investigation, inquiry and problem-solving activities including completing an assessment which enables students to undertake a piece of research which interests them and models the type of mathematical activity undertaken in the modern world.

Math Seminar 4

Course	Credits	Suggested Grade Level
Y347	1	12

Prerequisites:

This course is designed to strengthen students' understanding of basic math concepts and provide instruction in consumer and life skill math topics. Topics that will be covered are earnings, payroll deductions and expenses, budgets, schedules and maps, geometry and measurement.



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Weighted Course



Alternating Year
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Course Number Key

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V- Virtual I- IB Programme

Mathematics

Precalculus



Course	Credits
Y357	1
H357	

Suggested Grade Level 11-12

Prerequisites: College-Prep Geometry and College-Prep Algebra 2

This course consists of the study of topics in mathematics that prepare students for Calculus. These topics include: families of functions, discrete math, and trigonometry. The analysis of quadratic, polynomial, rational, exponential, logarithmic, and trigonometric functions connects symbolic, graphical, and contextualized representations of functions. Discrete math topics to be explored are sequences and series. An abstract and contextual understanding of right and oblique triangle trigonometry, radian measure, and the unit circle will be developed. Identities and properties of trigonometric functions will be explored and applied to solve problems.

Adv Topics Math



Course	Credits
Y377	1

Suggested Grade Level 11-12

Prerequisites: Advanced Placement Calculus BC

Advanced Topics in Mathematics focuses on multivariable and vector calculus. Additionally, students will be expected to explore other mathematical concepts not typically found in a high school curriculum. The course begins with vectors in space and the appropriate operations, lines, planes, cylinders, and quadric surfaces. It continues with Vector-Valued Functions, the unit tangent vector, the unit normal vector, curvature, torsion, and the TNB frame. We will examine multivariable functions, limits and continuity, partial derivatives, gradient vectors, Lagrange Multipliers, and Taylor's Formula. Students will investigate double and triple integrals in various coordinate systems. The vector calculus portion of the course finishes with the study of vector fields, line integrals, surface integrals, Green's theorem, Stoke's Theorem, and the Divergence (Gauss) Theorem. The course continues with the study of linear algebra. Throughout the course, students will be expected to explore additional topics not typically found in a high school mathematics course.

AP Comp Sci



Course	Credits
Y366	1

Suggested Grade Level 11-12

Prerequisites: Advanced Algebra 2

AP Computer Science is a full-year programming course using the Java language. It is a college-level course for which many universities grant advanced placement credit dependent on the results of an AP Exam given in May. The course will begin with an introduction to Java syntax and style conventions and basic programming constructs such as data types, variables, control statements, iteration, and recursion. Well known algorithms will be applied to solve problems, especially when working with structures like Strings and Arrays. Object Oriented Programming Design will be employed throughout the course. The use of classes, hierarchies, and interfaces will be fundamental. Searching and sorting algorithms and their efficiencies will be discussed. At the end of the course, students will explore components that make programs more viable. Topics include streams and files, graphics, GUI components, mouse, keyboard, sound, and images. A culminating final project will give students the opportunity to showcase learned skills and concepts and to research new skills to create and present a program of their choice.

AP Stat



Course	Credits
Y363	1

Suggested Grade Level 11-12

Prerequisites: Advanced Algebra 2 or a very strong performance in College-Prep Algebra 2

The purpose of Advanced Placement Statistics is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to four broad conceptual themes:

1. Exploring data: exploring patterns and departures from patterns.
2. Planning a study: deciding what and how to measure.
3. Anticipating patterns: predicting models using probability and simulation.
4. Statistical inference: confirming models.

Students who successfully complete the course and the Advanced Placement examination may receive credit and/or advanced placement for a one-semester introductory college statistics course. At least one statistics course is typically required for majors such as engineering, psychology, sociology, health science and business.



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Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

Mathematics

Intro Calculus



Course	Credits
Y360	1

Suggested Grade Level 12
Prerequisites: Precalculus or Advanced Precalculus

Introductory Calculus is a full-year course covering differentiation and integration of functions of a single variable, with an emphasis on business applications. The concept of a limit will be introduced as a means for evaluating derivatives and integrals. Students will apply skills of differentiation to measure instantaneous rates of change and determine optimal solutions to contextual problems. Students will evaluate integrals using both Riemann Sums and antiderivative techniques and apply these skills in calculating total change. Students will create and solve differential equations to model real-world change. A graphing approach to the subject will be employed and graphing calculators will be used for various topics in the class.

Statistics



Course	Credits
Y386	1

Suggested Grade Level 11-12
Prerequisites: Algebra 2

The topics of this course will include exploration of categorical and quantitative data and comparison of data distributions. Students will learn to produce meaningful data by sample, surveys and experiment. Probability, normal distributions and sampling distributions of random variables are included. Students will learn to use confidence intervals and significance tests for means and proportions. This is not a lecture course, but rather one of active learning with an investigative approach to statistics.



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Music Program

A music empowered student values music as part of a comprehensive education and an essential expression of the human experience. Students become lifelong patrons and practitioners of music through creativity, critical thinking, music literacy, and aesthetic awareness.

Students who are interested in performing music are provided with a sequential program of music courses in Band, Orchestra, Choir, Rock Ensemble and Guitar. Students may enter the sequence at any grade in the secondary schools by demonstrating to the music director their ability to perform music commensurate with that grade level. Select groups are available to challenge those students with more advanced abilities.

Students who are interested in creating music or understanding more about music are offered a variety of nonperformance electives, including Music Theory, AP Music Theory, and IB Music.

Program	9 th Grade	10 th Grade	11 th Grade	12 th Grade
Non-Audition Performing Ensembles	*Band *Choir *Orchestra (see below) Rock Ensemble	Band Choir Symphony Orchestra Rock Ensemble	Concert Band Concert Choir Symphony Orchestra Rock Ensemble	Concert Band Concert Choir Symphony Orchestra Rock Ensemble
Audition Performing Ensembles		Adv. Band Adv. Choir Adv. Strings Adv. Rock Ensemble	Adv. Band Adv. Choir Adv. Strings Adv. Rock Ensemble	Adv. Band Adv. Choir Adv. Strings Adv. Rock Ensemble
Elective Music Classes	Guitar 1 Guitar 2 Music Theory 1 AP Music Theory	Guitar 1 Guitar 2 Music Theory 1 AP Music Theory	Guitar 1 Guitar 2 Music Theory 1 AP Music Theory	Guitar 1 Guitar 2 Music Theory 1 AP Music Theory

*9th Grade Performing Ensembles (full block)

Band (Y401) - half block

Orchestra (Y405) - half block

Choir (Y410) - half block

All three ensembles occur within the same full block and students may be enrolled in all three ensembles.

Each ensemble will meet for one half-block. Choir will meet for one half, while the band and orchestra will meet during the other half. Students who double in band and orchestra will be scheduled every other class meeting in each ensemble. Students only in one ensemble will be scheduled in a study hall for the other half-block, schedule another half-black course, or enroll in Learning Enrichment.

Music

9th Grade Band

Course	Credits	Suggested Grade Level
Y401	.5	09 Prerequisites: Participation in Eighth-Grade Band or audition with a Band director.

Ninth-Grade Band is intended for students interested in improving their skills in instrumental music. In rehearsals, students work to strengthen and improve their abilities to correctly perform band music at two public concerts. In addition, students enrolled in this band have the opportunity to participate in the High School Marching Band as well as the High School Jazz Bands.
*This course meets for one half block.

9th Grade Choir

Course	Credits	Suggested Grade Level
Y410	.5	09 Prerequisites: Participation in Eighth-Grade Choir or audition with a Choir Director.

Ninth-Grade Choir is intended for students interested in improving their performance skills in vocal music. In rehearsals, students work on the development of appropriate vocal production, sight reading and aural skills. Three public concerts will be presented yearly.
*This course meets for one half block.

9th Grade Orchestra

Course	Credits	Suggested Grade Level
Y405	.5	09 Prerequisites: Participation in Middle School Orchestra or audition with an Orchestra Director.

The Ninth-Grade Orchestra affords students the opportunity to gain experience playing a wide range of orchestral literature from various styles and periods.

In rehearsals, students work to develop an awareness of proper pitch, timbre, tone quality, rhythm and intonation. Students will expand skills in articulation, bowing, orchestral tone production and interpretation of the different styles of orchestral music in the course of preparing for two public concerts.
*This course meets for one half block.

Guitar 1

Course	Credits	Suggested Grade Level
S419	.5	09-12 Prerequisites:

The course will focus on learning the rudiments of guitar instruction including: proper posture, basic music notation, tablature, scales and chord reading. The class will also learn popular songs by ear and through using tablature. Students will play individually and in groups.
*Additional focus will be placed on using music software as a learning tool. This course is a prerequisite for Guitar 2.

Guitar 2

Course	Credits	Suggested Grade Level
S422	.5	09-12 Prerequisites: Instructor approval of Guitar 1

This course is intended for individuals who have successfully achieved the skills acquired in Guitar 1. Additional emphasis will be placed on advanced scale studies, traditional notation, individual class performance, and ensemble class performance.



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Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

Music

Music Theory 1

Course	Credits	Suggested Grade Level
S416	.5	09-12

Prerequisites:

This course is intended for students with limited experience with the fundamentals of music. Students study the basics of music theory, including scales, chords, intervals, keys, modes, rhythm, melody and harmony. Students are trained to hear and identify these music mechanics and to use them in composing and arranging works of their own and others.

Rock Ensemble

Course	Credits	Suggested Grade Level
S415	.5	09-12

Prerequisites: Audition with instructor

This course is designed to focus on contemporary popular ensemble music. In rehearsals, students participate in small group ensembles focusing on performing classic rock literature, along with writing, arranging, rehearsing and performing their own original compositions. Students must be proficient on their instrument and able to work positively in a small group environment.

Students will be expected to demonstrate their command of melody, harmony, meter, tonality, ensemble balance and style through regular performance in class and at a final recital.

*Additional focus will be placed on sound reinforcement, musical equipment set-up, care and maintenance along with basic instrument repair.

*This course meets for one half block.

10th Grade Band

Course	Credits	Suggested Grade Level
Y402	.5	10

Prerequisites: Participation in Ninth-Grade Band or audition with a Band director.

Tenth-Grade Band is intended for students who are interested in furthering their study of high school level band literature. In rehearsals, students work to improve their performing skills, while preparing for two public concerts. In addition, students desiring more performance opportunities and greater challenges may audition for the High School Symphonic Band, as well as the High School Jazz Bands. All band members are also eligible to join the High School Marching Band.

*This course meets for one half block.

10th Grade Choir

Course	Credits	Suggested Grade Level
Y411	.5	10

Prerequisites: Participation in Ninth-Grade Choir or audition with a Choir Director.

Tenth-Grade Choir is intended for students who are interested in furthering their study of high school level choral literature. Skill development started in Ninth-Grade Choir will be continued along with the performance of more challenging choral literature from all historical periods. Three public concerts will be presented. In addition, students desiring additional performance opportunities may audition for the High School Master Singers and other advanced vocal ensembles.

*This course meets for one half block.



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Weighted Course



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Music

Adv Band

Course	Credits
Y404	1

Suggested Grade Level 10-12
Prerequisites: Audition and acceptance into Advanced Band (also known as Symphonic Band)

This course, also known as Symphonic Band, is designed for motivated band students of advanced ability who plan on continuing their musical activities at the college/conservatory level. In rehearsals, the students work on the skills of blend, balance, tone quality intonation and proper interpretation, while preparing for three major concerts during the school year. Advanced Band students will receive an enriched curriculum which will address individual musical skills. In addition, students are eligible to audition for music festivals at the district, regional, state and all-eastern levels and to travel to festivals and competitions as the opportunities occur. Students enrolled in Advanced Band have the opportunity to participate in the High School Marching Band and to audition for the High School Jazz Ensembles.

Adv Choir

Course	Credits
Y412	1

Suggested Grade Level 10-12
Prerequisites: Audition and acceptance into Advanced Choir (also known as Master Singers)

This course provides a challenge for students who show exceptionally high levels of skill development and vocal maturity, and who plan on continuing their musical activities at the college/conservatory level. In rehearsals, students work on the skills of blend, balance, tone quality, intonation and proper interpretation while preparing for four major concerts yearly. Advanced Choir students will receive an enriched curriculum which will address individual musical skills. In addition, students are eligible to audition for music festivals at the district, regional, state and all-eastern levels and to travel to festivals and competitions as the opportunities occur. Students enrolled in Advanced Choir will have the opportunity to audition for the State College Chamber Singers; an advanced level, extra curricular choral ensemble.

Adv Rock Ensemble

Course	Credits
Y420	1

Suggested Grade Level 10-12
Prerequisites: Successful completion of at least one year of Rock Ensemble and the recommendation of the instructor.

This course is designed for self-motivated musicians who have already completed Rock Ensemble. The class will focus on contemporary popular ensemble music, including original composition. Students must be very proficient on their instruments and able to work positively in a small group environment.

Students will be challenged with advanced study of melody, harmony, meter, tonality, ensemble balance and style through regular classroom performances and a final public recital.

*Additional training on sound reinforcement, musical equipment set up, care and maintenance will be a part of the curriculum.

Adv Strings

Course	Credits
Y407	1

Suggested Grade Level 10-12
Prerequisites: Audition and acceptance into Orchestra

This course is intended for motivated string students of advanced ability who plan on continuing their musical activities at the college level. In addition to those assignments included in the Orchestra curriculum, Advanced Strings students will receive an enriched curriculum which will address individual musical skills.



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Weighted Course



Alternating Year
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Music

AP Music Theory

Course	Credits
Y417	1

Suggested Grade Level 10-12

Prerequisites: Suggested Prerequisites: Successful completion of Music Theory 1, Reading notation / treble and bass clef / construction of Major and minor scales, intervals, triads and seventh chords.

This course is designed for students with extensive musical background who have plans on continuing musical study at the collegiate level. Prior knowledge of harmonic analysis, scales, keys, intervals, and keyboard skills are required prior to enrollment. In addition to advanced-level music theory, students will study musical form and music history, with extensive work in aural skills, melodic and harmonic dictation, music transcription and composition. The curriculum is designed to provide the necessary background for the successful completion of the AP test in Music Theory.

Symphony Orchestra

Course	Credits
Y406	.5

Suggested Grade Level 10-12

Prerequisites: A recommendation from the Orchestra director (strings) or from the Band director (woodwinds, brass, percussion)

The High School Orchestra affords students the opportunity to gain experience playing a wide range of orchestral literature from various styles and periods.

In rehearsals, students work to develop an awareness of proper pitch, timbre, tone quality, rhythm and intonation. Students will expand skills in articulation, bowing, orchestral tone production and interpretation of the different styles of orchestral music in the course of preparing for two public concerts.

*In addition, students are eligible to participate in music festivals at the district, state and all-eastern level; as well as in chamber music ensembles.

*This course meets for one half block.

Concert Band

Course	Credits
Y400	.5

Suggested Grade Level 11-12

Prerequisites: Participation in Tenth-Grade Band or audition with the Concert Band director.

The Concert Band is intended for students who are interested in performing excellent high school band literature. In rehearsals held every other day for the whole year, students work to expand their instrumental music skills while preparing for three public concerts. In addition, students are eligible to participate in the High School Marching Band and the High School Jazz Bands. Students desiring a greater challenge may also audition for the Symphonic Band.

*This course meets for one half block.

Concert Choir

Course	Credits
Y408	.5

Suggested Grade Level 11-12

Prerequisites: Participation in Sophomore Choir or an audition with a Choir Director.

Concert Choir is divided into Cecilian Singers (Women) and OMA (Men). These ensembles are intended for students who are interested in performing single gender literature. Students enrolled in Concert Choir are eligible to audition for music festivals at the district, regional and state levels. In rehearsals, students work to improve skills in breathing, sight-reading, more advanced musical notation, tone development, posture and musical expression. There is no audition for Concert Choir nor is previous high school choral experience expected. These ensembles will travel to festivals and competitions as the opportunities occur.

*This course meets for one half block.



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Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

Science Program

The Science Department encourages students to select a comprehensive science program which permits the exploration of a wide range of topics. A typical State College student will start their scientific exploration with Earth Systems Science and as their high school career progresses, move to Biology, Chemistry and Physics.

The Science Department offers many advanced courses and electives to those students who have acquired an interest in a particular scientific discipline and want to expand those interests. Student should carefully read the course descriptions and study the sequence charts prior to selecting courses. Some courses are instructed at a higher level of difficulty and require a prerequisite science and/or mathematics background. Further, some courses are offered on alternate years and thus may be available only once in a student's high school career. Please read the descriptions carefully so that you may plan for course selections in future years. Some courses have been "nested" with courses from different yet related disciplines. Students enrolled in these nested programs will experience, transfer, and apply knowledge and skills among the disciplines represented while mastering the core content of individual courses, students register for both nested courses. More information on these courses is located in the SCASD STEM section in the front of this guide.

All Science courses are laboratory courses and upon successful completion of each, students earn credit in a laboratory science that meets college entrance requirements.

SCASD STEM Courses

To provide students with skills needed for success in the 21st Century, we have launched the Science, Technology, Engineering, (Arts) and Mathematics (STEM/STEAM) initiative. A key component of the STEM/STEAM initiative is the "nesting" of existing courses from different yet related disciplines into the master schedule such that students will be co-enrolled in these courses. Students enrolled in these "nested" programs will experience, transfer and apply knowledge and skills among the disciplines represented while mastering the core content of the individual courses. Registration for these "nested" programs commits students to participation in **all** components of these programs. Students may **not** participate in only one component of the program. Therefore it is incumbent upon students and parents to consider well the commitment in terms of time and effort required to be successful in these programs.

Advanced Physics 1 / AET (Y479):

1 credit Adv Physics 1, 1 credit Adv Engineering Technology Suggested grade level 11 – 12

Prerequisites: Successful completion of two Science courses (i.e. Earth Systems Science 1 or Advanced Earth Systems Science 1; Biology 1 or Advanced Biology 1; Chemistry 1 or Advanced Chemistry 1; Environmental Science 1). Completion of CP Algebra 2. Concurrent enrollment in Precalculus or AP Calculus.

This nested set of courses is designed for the student seriously considering a career in engineering or a related technical field. Advanced Physics 1 and Advanced Engineering Technology are scheduled back-to-back (in consecutive blocks) allowing for project work and integration of physics into engineering applications. The student will receive 1 credit and a separate weighted grade for each section of the course. Physics concepts will be algebra-based and include linear and projectile kinematics, dynamics, momentum, energy, wave theory, sound, electricity, magnetism, and other special topics time permitting. Critical thinking and problem solving skills are stressed with evaluation being based upon tests, quizzes, laboratory exercises, projects, homework and participation.

Advanced Engineering Technology gives students the opportunity to learn about and experience engineering topics though direct instruction, class work, activities, tests, labs and projects. Students will also experience engineering through guest speakers, field trips and face-to-face interactions with practicing engineers. STEM (Science, Technology, Engineering and Math) concepts are emphasized throughout. Students interested in a wider range of physics topics and a course that prepares them for the AP Physics 1 Exam should consider enrolling in the Advanced Placement Physics 1+ course.

Science Program

Suggested Sequence of Science Courses

Program	9 th Grade	10 th Grade	11 th & 12 th Grade
Advanced	Advanced Earth Systems Science 1	Advanced Biology 1	Advanced Biology Electives: Advanced Genetics Advanced Molecular & Cellular Bio Advanced Chemistry 1 Advanced Chemistry 2 Advanced Earth Systems Science Electives: Advanced Geology Advanced Oceanography Advanced Physics/Advanced Engineering Tech Advanced Topics in Physics Anatomy and Physiology AP Physics 1+ AP Physics C Mechanics; Electromagnetism IB Environmental Systems and Societies SL IB Physics SL IB Physics HL Forensic Science Organic Chemistry
College-Prep	Earth Systems Science 1	Biology 1	Advanced Biology Electives: Advanced Genetics Advanced Molecular & Cellular Bio Advanced Earth Systems Science Electives: Advanced Geology Advanced Oceanography Advanced Physics/Advanced Engineering Tech Anatomy and Physiology Chemistry 1 Chemistry Matters Environmental Science 1 Forensic Science Intro the Wilds – Ecology of Centre County Organic Chemistry Physics 1 Physics: Sights, Sounds & Circuits Survivor Science

Science

Adv Earth Systems Science 1



Course	Credits	Suggested Grade Level
Y473	1	09

Prerequisites:

This course is recommended for students who have above average skills in mathematics (completion of Algebra 1) and who plan on pursuing a career in the fields of science and engineering. The class provides an in-depth look at the Earth systems, as they relate to the topics of astronomy, geology, oceanography, and meteorology. The nature of this advanced course is such that students study the topics in greater detail at a pace that provides for further enrichment. Students who take this course will utilize their mathematic knowledge and will be expected to demonstrate independent, higher order thinking and problem-solving skills, as measured through assessments, laboratory exercises, data analysis, homework assignments, special assignments and class discussions. This course is recommended as a prerequisite for the advanced electives in the Earth Science, and all other advanced courses in the sciences.

Earth Systems Science 1



Course	Credits	Suggested Grade Level
Y465	1	09

Prerequisites:

The class provides an investigation of the Earth systems as they relate to the topics of astronomy, geology, oceanography, and meteorology. Students will explore the interactions among these components in order to explain Earth's dynamics, Earth's evolution, global change and Earth's place within the universe. Students who take this course will utilize their mathematics knowledge with the guidance of the teachers. Students who pass this course may not elect to take Advanced Earth Systems Science at a later date. Evaluation of the students is based on tests, quizzes, laboratory exercises, homework and special assignments.

Adv Astronomy



Course	Credits	Suggested Grade Level
S470	.5	10-12

Prerequisites: Completion of an Advanced Earth System Science 1 course or satisfactory completion and/or concurrent enrollment in Chemistry 1 or Advanced Chemistry 1 and Algebra 2.

This course designed for college-bound students seeking in-depth experiences in the Earth Systems Sciences. Emphasis is placed on understanding the physical environment through an increased awareness of the processes of science. A historical introductory unit combined with planetarium exercises will begin the search for natural laws that eventually will allow lessons to focus on planets, stars, galaxies and cosmology. This course of study builds on the astronomy concepts covered in all Earth Systems Science courses.

*This course alternates yearly with Advanced Geology.

Adv Geology



Course	Credits	Suggested Grade Level
S468	.5	10-12

Prerequisites: Completion of an Advanced Earth Systems Science 1 course or satisfactory completion and/or concurrent enrollment in Chemistry 1 or Advanced Chemistry 1 and CP Algebra 2 or Advanced Algebra 2.

This course is designed for college-bound students seeking in-depth experiences in Earth Systems Science. Emphasis is placed on understanding the physical environment through an increased awareness of the processes of science. Areas covered include composition and deformation of the Earth's crust, mineralogy and petrography; sedimentology and stratigraphy; interpretation of topographical maps and aerial photographs; weathering and the development of land forms caused by mass-wasting, streams, groundwater, wind and glaciers; structural geology and reading geologic maps. Evaluation is based on tests, quizzes, laboratory activities, projects and field trips. This course of study builds on the geology concepts covered in all Earth Systems Science courses.

*This FALL course alternates yearly with Advanced Astronomy.



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Keystone



Weighted Course



Alternating Year
Course

Course Number Key

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V- Virtual I- IB Programme

Science

Adv Meteorology



Course Credits Suggested Grade Level
S469 .5 10-12

Prerequisites: Completion of an Advanced Earth System Science 1 course or satisfactory completion and/or concurrent enrollment in Chemistry 1 or Advanced Chemistry 1; Algebra 2 or Advanced Algebra 2.

Not offered this year

This course, along with other advanced Earth Science electives, is designed for college-bound students seeking in-depth experiences in Earth Science. Emphasis is placed on understanding the physical environment through an increased awareness of the processes of science. Areas covered include structures and composition of the atmosphere, heating of the atmosphere, atmospheric motion, storms, hazardous weather and weather prediction and modification. Evaluation is based on tests, quizzes, laboratory activities and projects. This course of study builds on the meteorology concepts covered in all Earth System Science courses.

*This SPRING course alternates yearly with Advanced Oceanography.

Adv Oceanography



Course Credits Suggested Grade Level
S471 .5 10-12

Prerequisites: Completion of an Advanced Earth Systems Science 1 course or satisfactory completion and/or concurrent enrollment in Chemistry 1 or Advanced Chemistry 1, CP Algebra 2 or Advanced Algebra 2.

This course, along with other advanced Earth Science electives, is designed for college-bound students seeking in-depth experiences in Earth Science. Emphasis is placed on understanding the physical environment through an increased awareness of the processes of science. Areas covered include the impact of oceans on everyday life; methods of oceanographic research; chemistry, salinity, temperature and motion of water; submarine and coastal landforms; erosion and deposition of ocean sediments; marine ecology; and oceans as a resource. Evaluation is based on tests, quizzes, laboratory exercises and term projects.

*This SPRING course alternates yearly with Advanced Meteorology.

Adv Biology 1



Course Credits Suggested Grade Level
Y474 1 10

Prerequisites: Satisfactory completion of or concurrent enrollment in Earth Systems Science 1 or Advanced Earth Systems Science.

Advanced Biology 1 is an in-depth fast-paced, and rigorous study of fundamental topics within the field of biology with an emphasis on cellular, molecular, and environmental concepts. This course provides a foundation for further studies in biology at State High and at the post secondary level. Units of study include: Principles of Biology, Chemical Basis of Life, Bioenergetics, Homeostasis and Transport, Cell Growth and Reproduction, Genetics, Theory of Evolution, and Ecology. Laboratory activities are emphasized. Evaluation is based on tests, quizzes, homework, laboratory performance and projects. A high level of reading and math skills are essential for this course. This course meets the state required biology standards and prepares students for the required Keystone Biology Exam.

Adv Botany



Course Credits Suggested Grade Level
S451 .5 11-12

Prerequisites: Biology 1, Advanced Biology 1 or Environmental Science 1, Earth Systems Systems 1 or Advanced Earth Systems Science 1 and satisfactory completion or concurrent enrollment in Chemistry 1 or Advanced Chemistry 1.

Not offered this year

Botany is a hands on approach to the study of plants and their relationship with the environment. This course along with other advanced biology electives is designed for students seeking in-depth experiences in new topics not covered in Biology. The areas of study includes plant diversity, anatomy, life cycles, hormones, nutrition, transport, and ecology. In addition, the classes will design and conduct research projects on a variety of plant-based topics including plant-pollinator interactions, growth patterns, invasive species, and GMO crops. This course includes field trips to local universities and research projects done in conjunction with PSU labs and faculty. This course relies heavily on laboratory activities, lab notebooks, and requires regular attendance. Evaluation is based on tests, quizzes, and laboratory performances.

This course when taken in conjunction with all the advanced biology electives prepares students for the AP Biology exam.

*This FALL course alternates yearly with Adv. Molecular and Cellular Biology.



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Weighted Course



Alternating Year
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Science

Adv Genetics



Course	Credits
S454	.5

Suggested Grade Level 11-12

Prerequisites: Biology 1, Advanced Biology 1 or Environmental Science 1 and satisfactory completion or concurrent enrollment in Chemistry 1 or Advanced Chemistry 1.

Genetics is the study of genes, and gene variation. This course along with other advanced biology electives is designed for college-bound students seeking in-depth experiences in biology. Topics include cell division, genetics of viruses and bacteria, Mendelian inheritance, chromosomal inheritance, molecular genetics, and DNA technologies while integrating appropriate topics in chemistry. Particular emphasis is placed on development of current biotechnology procedures, working with living model organisms, and how they connect to other areas of science and technology. This course relies heavily on laboratory activities and requires regular attendance.

This course when taken in conjunction with all the advanced biology elective courses prepares students for the AP Biology exam.

*This SPRING course alternates yearly with Adv. Zoology

Adv Molecular & Cellular Bio



Course	Credits
S453	.5

Suggested Grade Level 11-12

Prerequisites: Biology 1 or Advanced Biology 1; satisfactory completion or concurrent enrollment in Chemistry 1 or Advanced Chemistry 1.

Molecular and Cellular Biology is a scientific study that explores many fields of biology and techniques to understand cell function. This course will take a deeper look into the world of cells and how they connect to other areas of science and technology. These areas include cell division, organic molecules, bacterial growth and identification, and experimental design. This class also allows students to focus on a molecular approach overlapping with topics in chemistry, biotechnology, genetics and biochemistry. This course relies heavily on laboratory activities and requires regular attendance. MCB is very rewarding and helpful for college biology classes, but also very demanding.

This course when taken in conjunction with all of the advanced biology elective courses prepares students for the AP Biology Exam.

*This FALL course alternates yearly with Adv. Botany

Adv Zoology



Course	Credits
S452	.5

Suggested Grade Level 11-12

Prerequisites: Earth Systems Science 1, Advanced Earth Systems Science 1, Biology 1, Advanced Biology 1 or Environmental Science 1; Satisfactory completion or concurrent enrollment in Chemistry 1 or Advanced Chemistry 1.

Zoology is a hands on approach to the study of invertebrate and vertebrate animal systems in marine and terrestrial environments. This course along with other advanced biology electives is designed for students seeking in-depth experiences in new topics not covered in Biology. Topics include animal diversity, behavior, classification, and structure and function of body systems from jellyfish, squid, and sharks up through mammals. This course includes fieldtrips centered around research and labs done in conjunction with PSU faculty. This course relies heavily on laboratory activities with the animals and requires regular attendance. Evaluation is based on tests, quizzes, and laboratory performances.

Not offered this year

This course when taken in conjunction with all the advanced biology electives prepares students for the AP Biology exam.

*This SPRING course alternates yearly with Adv. Genetics

Anatomy & Physiology



Course	Credits
Y753	1

Suggested Grade Level 11-12

Prerequisites: Advanced Biology 1, Biology 1

This course will involve students in an in depth study of the structure and function of the human body. Special attention will be given to the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, immune, respiratory, digestive, lymphatic, urinary and reproductive systems. It will provide a firm foundation for further study at the post-secondary level. Students are encouraged to take Anatomy & Physiology with the other Health Professions courses.

It is recommended that students have two years of high school mathematics before scheduling this course.



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Science

Biology 1



Course	Credits
Y467	1

Suggested Grade Level 10

Prerequisites: Completion of Earth Systems Science 1 or Advanced Earth Systems Science 1.

This course introduces the fundamental principles in the field of biology with an emphasis on cellular, molecular, and environmental concepts. Course provides a foundation for further studies in biology at State High and at the post secondary level. Units of study include: Principles of Biology, Chemical Basis of Life, Bioenergetics, Homeostasis and Transport, Cell Growth and Reproduction, Genetics, Theory of Evolution, and Ecology. Laboratory activities are emphasized. Evaluation is based on tests, quizzes, homework, laboratory performance and projects. This course meets state required biology standards and prepares students for the required Keystone Biology Exam.

Adv Chemistry 1

Course	Credits
Y458	1.5000

Suggested Grade Level 10 - 12

Prerequisites: Completion of Advanced Earth Systems Science 1 and/or Advanced Biology 1; completion of Earth Systems Science 1 and Biology. Completion of or concurrent enrollment in Algebra 2 or higher.

This course is designed for students with a strong aptitude for mathematics who plan on pursuing a career in math, engineering or the sciences. Experimental and theoretical aspects of chemistry are explored. Topics will include - measurement, matter, atomic theory, nuclear chemistry, bonding, nomenclature, moles, reactions, stoichiometry, solutions, gas laws, rates & equilibria and acids/bases. Evaluation is based on tests, quizzes and laboratory reports.

Adv Chemistry 2

Course	Credits
Y459	1.5000

Suggested Grade Level 11-12

Prerequisites: Advanced Chemistry 1 and recommendation of Advanced Chemistry 1 teacher. Completion of Advanced Precalculus.

This laboratory intensive course is designed for students who plan to pursue a career in one of the physical sciences. Students will investigate the connections among numerous chemistry topics and will apply chemical theory in problem-solving and laboratory experimentation. Students develop independent investigative skills, including the presentation of experimental results in standard laboratory report format. Evaluation is based on tests, laboratory reports, and homework.

Completion of a physics course is recommended but not required.

Chemistry 1

Course	Credits
Y457	1

Suggested Grade Level 11-12

Prerequisites: Junior or Senior class standing. Completion of two science courses (i.e. Earth Systems Science 1, Advanced Earth Systems Science 1, Biology 1, Advanced Biology 1 or Environmental Science 1).

This course is designed for the student who desires a basic understanding of the fundamentals of chemistry. Experimental, theoretical, and practical aspects of chemistry will be explored with an emphasis on the application and relevance of chemical principles. Topics will include matter, atomic theory, bonding, nomenclature, reactions, the mole, stoichiometry, and solutions. Upon successful completion of this course, students will earn a credit of laboratory science, which meets college entrance requirements. Evaluation is based on tests, quizzes, homework, and laboratory reports.

It is recommended that students be concurrently enrolled in Algebra 2 or higher.



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Weighted Course



Alternating Year
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Course Number Key

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Science

Chemistry Matters

Course	Credits	Suggested Grade Level
S482	.5	11-12

Prerequisites: Successful completion of two science courses

Students who have successfully completed a Chemistry course may not take this course.

This lab-based course will explore concepts of chemistry with limited emphasis on mathematics. Chemistry is a science with a very practical outlook. Students will gain a unique perspective on what things are made of and why they behave as they do. Students will investigate topics related to matter, types of energy, gas laws, and how changes in matter results in new materials. This broad-based class is open to all students in 11th and 12th grades who have not taken a full year chemistry course.

Forensic Science

Course	Credits	Suggested Grade Level
S486	.5	11-12

Prerequisites: Completion or concurrent enrollment in Chemistry 1 or Advanced Chemistry

The lab-based course will provide an introduction to crime scene investigations and forensic science to solve crimes. Topics in the course will include Locard's Exchange Principle, Human Decomposition, Arson, Analysis of Trace Evidence, Fingerprints and Blood/DNA. A variety of investigative and scientific techniques will be employed to analyze fingerprints, glass, hair, fibers, blood typing and spatter, accelerants, and DNA. Students will develop the laboratory precision needed and apply their deductive reasoning skills to develop an explanation from available evidence.

Organic Chemistry

Course	Credits	Suggested Grade Level
S487	.5	11-12

Prerequisites: Completion or concurrent enrollment in Chemistry 1 or higher

This lab-based course focuses on the chemistry of carbon based compounds. The primary focus will be to understand and appreciate the connections that organic chemistry has to the numerous facets of life. Topics would include nomenclature, organic structures and functional groups, reaction mechanisms, synthesis, and analytical techniques. Students who intend to pursue a career in chemistry, medicine, pharmacy, biology, nursing, or veterinary medicine will find this course extremely beneficial.

Adv Physics 1 & AET

Course	Credits	Suggested Grade Level
Y479	2	11-12

Prerequisites: Successful completion of two science courses (i.e. Earth Systems Science 1 or Advanced Earth Systems Science 1; Biology 1 or Advanced Biology 1; Chemistry 1 or Advanced Chemistry 1; Environmental Science 1) Completion of CP Algebra 2. Concurrent enrollment in Precalculus or AP Calculus.

This nested set of courses is designed for the student seriously considering a career in engineering or a related technical field. Advanced Physics 1 and Advanced Engineering Technology are scheduled back-to-back (in consecutive blocks) allowing for project work and integration of physics into engineering applications. The student will receive 1 credit and a separate weighted grade for each section of the course. Physics concepts will be algebra-based and include linear and projectile kinematics, dynamics, momentum, energy, wave theory, sound, electricity, magnetism, and other special topics time permitting. Critical thinking and problem solving skills are stressed with evaluation being based upon tests, quizzes, laboratory exercises, projects, homework and participation.

Advanced Engineering Technology gives students the opportunity to learn about and experience engineering topics through direct instruction, class work, activities, tests, labs and projects. Students will also experience engineering through guest speakers, field trips and face-to-face interactions with practicing engineers. STEM (Science, Technology, Engineering and Math) concepts are emphasized throughout. Students interested in a wider range of physics topics and a course that prepares them for the AP Physics 1 Exam should consider enrolling in the Advanced Placement Physics 1+ course.



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Science

Adv Topics in Physics

Course	Credits	Suggested Grade Level
S484	.5	11-12

Prerequisites: Concurrent enrollment in or completion of AP Physics and AP Calculus

This course addresses select topics in physics, utilizing calculus to analyze rigorous problems. Content is drawn from among the following areas: Thermodynamics, Mechanical and Electromagnetic Waves, and Atomic Physics. There is a focus on student-centered engagement via problem-solving and laboratory investigations.

AP Physics 1+

Course	Credits	Suggested Grade Level
Y461	1.5000	11-12

Prerequisites: Algebra 2

This course provides a systematic introduction to foundational physics; including translational and rotational mechanics, electrostatics, and elementary circuitry. Further topics will be introduced as time allows and may include: fluids, heat and thermodynamics, light and optics, sound, electromagnetism, quantum theory, nuclear physics, etc. Emphasis is on the development of conceptual understanding and problem-solving ability using algebra and trigonometry. Frequent laboratory experiences are coordinated with classroom work. Evaluation is based on tests, homework, and laboratory reports. Students are encouraged to use this course as preparation for the Advanced Placement Physics 1 Exam

AP Physics C: M & EM

Course	Credits	Suggested Grade Level
Y462	1.5000	11-12

Prerequisites: Completion of two advanced science courses (i.e. Advanced Earth Systems Science 1, Advanced Biology 1, or Advanced Chemistry 1).
Completion of, or concurrent enrollment in AP Calculus.

This is intended as a second year course in physics designed for college-bound students who plan to major in engineering, medicine or one of the physical sciences. Completion of Adv Physics 1: AET, or AP Physics 1+ is highly recommended. This course emphasizes the application and synthesis of fundamental physics principles with introductory differential and integral calculus to the solution of rigorous problems.

The curriculum consists of mechanics and electromagnetism, topics in Mechanics include: Kinematics, Newtonian Dynamics, Work and Energy, Momentum Conservation and Collisions, Rotational Kinematics and Dynamics, Equilibrium, Oscillations and Gravitation. Topics in Electromagnetism include: Electrostatics, Electric Potential and Capacitance, D.C. Circuits, Magnetic Fields and Forces, Electromagnetic Induction and Maxwell's Equations.

This course includes a hands-on laboratory component comparable to an introductory college-level physics laboratory course. Students are encouraged to use the course as a preparation for both Advanced Placement Physics C examinations.

IB Physics HL Y1

Course	Credits	Suggested Grade Level
I935	1.5000	11-12

Prerequisites: Algebra 2

This two-year course Physics course explores the most fundamental of the experimental sciences and seeks to explain the workings of the universe. Physics will be investigated through experimentation, projects, and mathematical modeling with an emphasis on communication. The societal, economic, and environmental impacts of physics will be discussed as well as the moral and ethical dilemmas associated with the various topics covered. These topics will include measurement and uncertainty, mechanics, thermal physics, waves, electricity and magnetism, circular motion and gravitation, atomic, nuclear, and particle physics, energy production, wave phenomena, fields, electron magnetic induction, and quantum physics.



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Science

IB Physics HL Y2

Course	Credits	Suggested Grade Level
I936	.5	12

Prerequisites: Completion of IB Physics HL Y1

This two-year course Physics course explores the most fundamental of the experimental sciences and seeks to explain the workings of the universe. Physics will be investigated through experimentation, projects, and mathematical modeling with an emphasis on communication. The societal, economic, and environmental impacts of physics will be discussed as well as the moral and ethical dilemmas associated with the various topics covered. These topics will include measurement and uncertainty, mechanics, thermal physics, waves, electricity and magnetism, circular motion and gravitation, atomic, nuclear, and particle physics, energy production, wave phenomena, fields, electron magnetic induction, and quantum physics.

IB Physics SL

Course	Credits	Suggested Grade Level
I934	1.5000	11-12

Prerequisites: Algebra 2

This one-year Physics course explores the most fundamental of the experimental sciences and seeks to explain the workings of the universe. Physics will be investigated through experimentation, projects, and mathematical modeling with an emphasis on communication. The societal, economic, and environmental impacts of physics will be discussed as well as the moral and ethical dilemmas associated with the various topics covered. These topics will include measurement and uncertainty, mechanics, thermal physics, waves, electricity and magnetism, circular motion and gravitation, atomic, nuclear, and particle physics, and energy production.

Physics 1

Course	Credits	Suggested Grade Level
Y460	1	11-12

Prerequisites: Successful completion of two science courses (i.e. Earth Systems Science 1 or Advanced Earth Systems Science 1; Biology 1 or Advanced Biology 1; Chemistry 1 or Advanced Chemistry 1; Environmental Science 1) Completion of CP Algebra 2. Concurrent enrollment in Precalculus or AP Calculus.

This course is designed for the student who desires a basic understanding of the fundamentals that govern our universe. Physics 1 is an algebra-based introduction to a broad range of topics: linear kinematics, dynamics, momentum, energy and wave theory. Student involvement in discussions and laboratory activities is emphasized. Critical thinking and problem solving skills are stressed. Evaluation is based upon tests, quizzes, laboratory reports, activities and homework.

Physics:Sights,Sounds&Circuits

Course	Credits	Suggested Grade Level
S483	.5	11-12

Prerequisites: Successful completion of two science courses

This lab-based course will explore concepts of physics with limited emphasis on mathematics. Students will investigate topics related to types of energy, properties of light, mirrors, lenses, sound, musical instruments, current, voltage and simple circuits. This broad-based class is open to all students in 11th and 12th grades who have not taken a full year physics course. Students who intend to pursue careers in music, art, photography, and other liberal arts fields will find this course beneficial.



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Science

Environmental Science 1

Course	Credits	Suggested Grade Level
Y472	1	11-12

Prerequisites: Two credits in science

This course is designed for students interested in a challenging and rigorous course in Environmental Science. Students will investigate interactions among physical, chemical, biological and Earth systems. Inquiry activities related to the areas of study are emphasized. Students participate in laboratory activities, field trips, independent studies, small group activities and discussions. Students are expected to participate in field experiences. Evaluation is based on tests, quizzes, laboratory performance and projects. Topics will include dendrology, forest resources, ecology, wildlife studies, human populations, geology, aquatic ecology, soils as well as consideration of current environmental issues.

It is recommended that students have completed Algebra 2 or higher. Students may earn credit in either Environmental Science 1 or Exp Wilds:Ecology of Centre County but not both.

Exp Wilds:Ecology of Centre Co

Course	Credits	Suggested Grade Level
S488	.5	11-12

Prerequisites: Successful completion of two credits in science

This course will engage students in the universal principles of ecology using a focus on Pennsylvania flora and fauna. Topics will include ornithology, aquatic ecology, forest and wildlife management. Students may be required to attend trips to local sites gathering data as part of the environmental fieldwork experience. Grades will be based upon fieldwork, classwork, homework, labs, presentations and tests.

Student may earn credit in either Environmental Science 1 or Ecology of Centre County but not both. Exp Wilds:Ecology of Centre County and Survivor Science are considered companion courses and it is recommended that students take both.

IB Enviro Systems & Soc SL

Course	Credits	Suggested Grade Level
I933	1	11-12

Prerequisites:

Through studying environmental systems and societies, students will be provided with a coherent perspective of the interrelationships between environmental systems and societies; one that enables them to adopt an informed personal response to the wide range of pressing environmental issues that they will inevitably come to face. The teaching approach is such that students are allowed to evaluate the scientific, ethical, and socio-political aspects of issues. An important aspect of the class is the hands-on laboratory work and field experiences. Topics include structure, measuring abiotic components of the system, measuring biotic components of the system, biomes, function, changes, and measuring changes in a system.

Survivor Science

Course	Credits	Suggested Grade Level
S489	.5	11-12

Prerequisites: Successful completion of two credits in science

This course will examine the elements of human survival on four levels: Primitive technologies, lost or stranded individual, natural disaster, and developing nations. Topics will include navigation, water, shelter, thermoregulation, cooking, wilderness first aid, poisonous and edible plants. This course includes field trips to local sites and multiple outdoor activities in forests and fields in varying weather conditions. Grades will be based on classwork, fieldwork, practical demonstration of skills, labs, and tests.

Exp Wilds:Ecology of Centre County and Survivor Science are considered companion courses and it is recommended that students take both.



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Science

Res Sci & Engin



Course Credits

Y476 1

Suggested Grade Level 11-12

Prerequisites: Successful completion of any 2 regular or advanced Science courses.

Successful completion of any 2 regular or advanced Mathematics courses

Students will learn and apply scientific research skills to original research projects. They will be mentored in problem delineation, literature search, hypothesis refinement, experimental design, methodology, data collection, statistical analysis, technical writing and presentation techniques. Findings and research progress will be presented in seminars. Instruction will be through guided discovery. Student progress will be assessed via participation in research seminars, review of research notes, papers and formal presentations to appropriate groups. These will include regional, state and national student research symposia and competitions. *This class meets by appointment so a student will need a study hall to meet with the instructor.



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Social Studies Program

The Secondary Social Studies Program provides the student with the skills and knowledge to be an actively engaged citizen in a global society. The courses offered in grades nine through twelve meet the state requirements for graduation. The twelfth grade offerings are the capstone of the program, enabling students to select areas of study that are of personal interest and value to their post-high school plans. The State College Area School District requires students to earn four social studies credits by the end of their senior year in order to graduate. Educational guidelines for the state of Pennsylvania require that students take one world history and one United States history course.

Program	9th Grade	10th Grade	11th Grade	12th Grade
Advanced	Adv World History 1 or AP Human Geography	Adv World History 2 or AP World History	AP US History	AP Comparative Government AP European History (Early) AP European History (Recent) AP Government and Politics AP Human Geography AP Psychology Advanced World Religions
College-Prep	World History 1	World History 2	College Prep US History or US History	African American Studies Business Law 1 Business Law 2 Current Issues Democracy in Action Diversity & Social Justice Economics Psychology Sociology
English Language Learners	US Culture History 1A – 5A, 1B – 5B			
IB Courses			IB Economics SL IB Business Mgt HL IB History of Americans HL IB World Religions	IB Economics SL IB Business Mgt HL IB History of Americans HL IB World Religions SL

Social Studies

Adv World History 1



Course	Credits	Suggested Grade Level
Y516	1	09

Prerequisites:

This course is designed for academically motivated, self-reliant students who have demonstrated advanced reading and writing skills. It is the first course in the Advanced World History program. The course begins with the development of India and moves on to a study of world religions and world history through the 18th Century. Students are introduced to historical research, primary-source analysis, and document-based questions. A formal research project will be assigned to serve as a framework for an in-depth exploration of historical topics. Strong reading and writing skills are strongly recommended. Emphasis is placed on historical analysis and the development of research skills. The course strives to provide students with the skills and knowledge to become responsible citizens in a global society.

AP Human Geography



Course	Credits	Suggested Grade Level
Y582	1	09-12

Prerequisites:

The AP Human Geography course presents high school students with the curricular equivalent of an introductory college-level course in human geography. Content is presented thematically rather than regionally and is organized around the discipline's main subfields: economic geography, cultural geography, political geography, and urban geography. The approach is spatial and problem oriented. Case studies are drawn from all world regions, with an emphasis on understanding the world in which we live today. Historical information serves to enrich analysis of the impacts of phenomena such as globalization, colonialism, and human-environment relationships on places, regions, cultural landscapes, and patterns of interaction. Students enrolled in this course will investigate problems of economic development and cultural change, population change and growth, the impacts of technology, as well as struggles over political power and control of territory. In addition, students will study the inequalities between developed and developing economies and the role of humans in shaping Earth's landscapes.

This course is available to all students in grades 9 - 12 as a social studies elective. Students may choose to take this course in addition to their grade-level social studies course. Students who successfully complete this course as a ninth grader can choose to use this credit to meet the ninth grade social studies graduation requirement.

*A score of three (3) or higher on the (optional) AP Human Geography exam may result in advanced credit at some colleges and universities.

World History 1



Course	Credits	Suggested Grade Level
Y515	1	09

Prerequisites:

World History 1 is the first course in the two-year world history program. The content includes the study of geography, as well the important political, social and economic concepts that impacted the development of the classical world and the early modern world. The course begins with a study of the civilizations of India and concludes with the Age of Exploration. Students will have the opportunity to participate in a variety of learning opportunities, including small and large group discussions, individual and group projects, and oral presentations. Throughout the course, students will be given opportunities to engage in research projects and to explore appropriate primary resources.

Adv World History 2



Course	Credits	Suggested Grade Level
Y518	1	10

Prerequisites:

This course is designed for academically motivated and self-reliant students who desire a challenging course of study in history and the social sciences. It is the second of two courses in the World History program. Topics include geography, cultural awareness and an in-depth study of World History from approximately the 18th century through the post-Cold War Era. Critical thinking and effective oral and written expression skills are emphasized. Extensive reading is required both in and out of class. Students should anticipate homework several times per week. Research and writing skills are stressed, with particular attention given to the development and refinement of skills in research organization, application of traditional library and online resources, and appropriate use of presentation software.



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Social Studies

AP World History

Course	Credits	Suggested Grade Level
Y581	1	10

Prerequisites:

The AP World History course focuses on developing students' understanding of world history from approximately 8000 B.C.E. to the present. Students investigate the content of world history for significant events, individuals, developments, and processes throughout six historical periods. Students develop and use the same thinking skills and methods that are employed by historians when studying the past. These methods and skills include analyzing primary and secondary sources, making historical comparisons, chronological reasoning and argumentation. The course is centered around five themes (listed below). Students use these themes to explore historical development and change over time in Africa, the Americas, Asia, Europe and Oceania.

Five Themes of AP World History

- Interaction between humans and the environment
- Development and interaction of cultures
- State building, expansion and conflict
- Creation, expansion and interaction of economic systems
- Development and transformation of social structures

A score of three (3) or higher on the (optional) Advanced Placement World History Exam may result in students earning credit at some colleges and universities.

World History 2

Course	Credits	Suggested Grade Level
Y517	1	10

Prerequisites:

World History 2, the second course in the World History program, focuses on building geography skills, expanding cultural awareness, and examining the study of the history from the 18th century through the post-Cold War Era. Students participate in a variety of activities including discussions, large- and small-group projects, individual projects, and oral presentations. Research and writing skills are stressed, with particular attention given to the development and refinement of skills in research organization, application of traditional library and on-line resources, and appropriate use of presentation software.

AP US History

Course	Credits	Suggested Grade Level
Y502	1	11

Prerequisites:

This introductory college-level course in United States history is designed to provide a comprehensive overview of United States History and to prepare students for the (optional) Advanced Placement United States History Exam. Students study the social, political, and economic history of the United States chronologically from the period just prior to European contact through the late twentieth century. Students refine their critical thinking skills through reading, discussion and writing assignments. Students are expected to take detailed notes. The analytical skills of interpretation, evaluation and synthesis are emphasized in the context of historical scholarship and evidence.

Assessments include objective and essay tests, a variety of homework assignments, small group discussions, and research projects. A high level of commitment is necessary to enjoy and succeed in this course.

*A score of three (3) or higher on the (optional) AP United States History Exam may result in advanced credit at some colleges and universities.

CP US History

Course	Credits	Suggested Grade Level
Y501	1	11

Prerequisites:

This year-long course begins with the rise of industrialization in the late 1800's and continues through modern-day America. Students study the social, political, and economic history of the United States throughout the 20th-century. Activities include an examination of primary source documents, debates, simulations, Socratic circles, internet based assignments, and research projects. Assessments include objective and essay exams, individual and small group projects, class discussions, and research projects. Students should enter this course with strong reading and writing skills.



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Social Studies

IB Business Mgt HL Y1

Course	Credits	Suggested Grade Level
I939	1	11,12

Prerequisites:

The IB Business Management course, a two-year course, is designed to develop students' knowledge and understanding of business management theories, as well as their ability to analyze, evaluate, and discuss business activities at local, national, and international levels. The course covers a range of organizations from all sectors, as well as the socio-cultural and economic contexts in which those organizations operate. The aim of this course is to develop a holistic understanding of business management, which includes finance, accounting, marketing, operations, and human resources. Through the exploration of six concepts underpinning the subject (change, culture, ethics, globalization, innovation, and strategy), the business management course allows students to develop their understanding of interdisciplinary concepts from a business management perspective.

IB Economics SL

Course	Credits	Suggested Grade Level
I941	1	11,12

Prerequisites:

The IB Economics course is a study in both macroeconomics and microeconomics, with an emphasis on applying economic concepts and theories to real-world issues. Prominent among these issues are fluctuations in economic activity, international trade, economic development and environmental sustainability. Additionally, students will engage in a study of international economies, as well as developing economies. Participants will investigate the ethical dimensions involved in applying economic policies and practices, and attention will be paid to the development of possible solutions to the economic challenges that we face as an increasingly interdependent and global society.

IB History of Americas HL Y1

Course	Credits	Suggested Grade Level
I942	1	11,12

Prerequisites:

The History of the Americas course is a two-year course, which will include a study of global history and issues, with an emphasis on Canada, Latin America, and the United States. Students will study a variety of historical periods and events, including the Great Depression, World War 2, the Cold War, and civil rights and civil liberties. This course is designed to promote and enhance a student's critical thinking skills, and to allow students to learn history by investigating multiple perspectives and making comparisons over time.

IB World Religions SL

Course	Credits	Suggested Grade Level
I944	1	11,12

Prerequisites: World History 2, Adv World History 2 or AP World History

The World Religions course seeks to promote respect for the diversity of religious beliefs, both locally and globally, with the aim of enhancing international and inter-religious understanding. This course will utilize historical and religious facts and experiences in order to engage students in an academic study of world religions. Each year, students will examine five to seven different world religions for the purpose of gaining a greater understanding of diverse religious and cultural perspectives. The course will be organized and structured around three fundamental questions which include: (1) What is the human condition? (2) Where are we going? (3) How do we get there?



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Social Studies

US History

Course	Credits	Suggested Grade Level
Y500	1	11

Prerequisites:

This course begins with the rise of industrialization in the late 1800s and continues through modern-day America. Students study the social, political, and economic history of the United States throughout the 20th century. Activities include an examination of primary source documents, debates, simulations, and research projects. Assessments include tests, individual and small group projects, class discussions, and research projects. A heavy emphasis is placed on literacy skills (reading, writing, speaking, listening). Class time is devoted to discussion, research, in-class assignments, presentations and projects.

Adv World Religions

Course	Credits	Suggested Grade Level
Y548	1	11, 12

Prerequisites: World History 2, Advanced World History 2 or AP World History

This course will utilize historical and religious facts in order to engage students in an academic study of world religions. Each year, students will examine five to seven different world religions for the purpose of gaining a greater understanding of diverse religious and cultural perspectives. The course will be organized and structured around three fundamental questions which include: (1) What is the human condition? (2) Where are we going? (3) How do we get there?.

African American Studies

Course	Credits	Suggested Grade Level
S580	.5	10-12

Prerequisites:

This social studies course is designed to further student knowledge of the African American experience taught from a different lens than typical survey history courses. Students will be introduced to various thematic topics that focus on a non-traditional approach covering the journey of a slave from capture, to servitude, to emancipation, to struggles for understanding the complex meaning of freedom. The course will also look at present-day issues, including controversial subjects that African Americans face as a legacy of slavery. At the same time, the course will emphasize that African American history is quintessentially American history. Students will be assessed on inquiry-based projects, discussion and self-reflection.

AP Comparative Gov

Course	Credits	Suggested Grade Level
S499	.5	11,12

Prerequisites:

This fast-paced, advanced senior elective course is designed for those students interested in gaining a deeper understanding of the processes and outcomes of politics in a variety of country settings. The course is a detailed study of six different world governments, determined by the AP College Board. Currently these countries include the United Kingdom, Russia, Mexico, Nigeria, Iran, and China. In addition, students will examine the problems surrounding the European Union (EU). Students are expected to read on-line notes, carry out individual and small-group research projects and presentations, participate in class discussions and simulations, develop and refine essay-writing skills.

AP Euro Hist:1450

Course	Credits	Suggested Grade Level
S513	.5	11,12

Prerequisites:

This senior elective in European history covers the period from the Renaissance through the Napoleonic Wars. Students will explore early European history in greater depth through the hands-on investigation of primary and secondary sources, small group projects, and class discussion. The course emphasizes the foundations of European society and culture, and modern international relations. Students who plan to take the Advanced Placement Exam in May are advised to register for both courses: Advanced Placement European History 1450-1815 and Advanced Placement European History 1815-Present. A score of three (3) or higher on this exam can earn a student advanced credit at some colleges and universities.

*This is a FALL course.



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Social Studies

AP Euro Hist:1815



Course	Credits	Suggested Grade Level
S514	.5	11,12

Prerequisites:

This senior elective in European history covers the period from the Congress of Vienna to the present. Students will explore early European history in greater depth through the hands-on investigation of primary and secondary sources, small group projects, and class discussion. The course emphasizes the development of European society and culture, and modern international relations. Students who plan to take the Advanced Placement Exam in May are advised to register for both courses: Advanced Placement European History 1450-1815 and Advanced Placement European History 1815-Present. A score of three (3) or higher on this exam can earn a student advanced credit at some colleges and universities.

*This is a SPRING course.

AP Government



Course	Credits	Suggested Grade Level
S520	.5	11,12

Prerequisites:

This AP course is designed for those students interested in gaining a deeper understanding of the United States government. Through Socratic Method, students critically analyze and evaluate the various institutions, groups, beliefs, and ideas that constitute politics in the United States. Topics include an examination of the philosophies underpinning the U.S. Constitution, the concept of original intent, the creation and role of political parties, and contemporary political philosophies. The course includes a detailed examination of Federalism as designed and an investigation into current practice. Students will examine the Legislative, Judicial and Executive branches of the government as they are defined in the Constitution, as well as how these branches function in contemporary America. Students are expected to read on-line notes, carry out individual and small group research projects and presentations, participate in class discussions and simulations, develop and refine writing skills, and complete self-evaluations of progress.

*A score of three (3) or higher on the (optional) Advanced Placement United States Government Exam may result in students earning credit at some colleges and universities.

AP Psychology



Course	Credits	Suggested Grade Level
S524	.5	11,12

Prerequisites:

AP Psychology, a course for academically motivated students, is designed to introduce students to the systemic and scientific study of the behavior and the mental processes of human beings and other animals. Students are exposed to the psychological theories, principles, and phenomena associated with each of the major fields within psychology. They will examine and use various methods of psychological research, which are related to each unit of study. Students participate in a variety of activities including but not limited to, primary source analysis and written response assessments, multiple choice assessments, class discussion, and large & small group collaborative assessments.

Business Law 1



Course	Credits	Suggested Grade Level
S608	.5	10-12

Prerequisites:

This course is designed to help students understand law both personal and business legal rights and duties. If you like debating, this class is for you. Topics of study include our legal system, court procedures, torts, contracts, employment and how our rights line up with our constitution.

Students will conduct a mock trial using correct courtroom procedure. Supplemental activities include field trips, guest speakers and videos. Any student interested in law, law enforcement, protective services, business or political science should consider this course.



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Weighted Course



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Course Number Key

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S- Semester B- Before School
V- Virtual I- IB Programme

Social Studies

Business Law 2/Ethics



Course	Credits	Suggested Grade Level
S598	.5	10-12

Prerequisites: Business Law 1

Ethics is defined as moral principles that govern a person's behavior or the conducting of an activity. Companies practice or neglect ethical behavior on a daily basis. This course introduces topics such as applying moral philosophies to Business Ethics, politics, culture as a factor within ethics, social responsibility, moral dilemmas, social and media, and ethical standards within the business community. If you like debating, this class is a must. A main consideration of the course is to encourage good decision making by the students as they consider their future careers and decisions they make.

Current Issues



Course	Credits	Suggested Grade Level
S507	.5	11,12

Prerequisites:

This course provides students with the opportunity to engage in the critical analysis of social, political and economic issues. The course is inquiry-based and challenges students to investigate current topics or issues from multiple perspectives in an effort to better understand the diversity and complexity of issues in the modern world. Deliberative Democracy is the foundation of the course. Students will seek, through discussion and deliberation, to find common ground and to grow to understand perspectives different from their own. Students participate in a variety of learning experiences. Assessments are project-based and are designed to allow students to demonstrate their learning in a variety of ways.

Democ In Action



Course	Credits	Suggested Grade Level
S525	.5	11,12

Prerequisites:

In this senior course, students focus on American government and current issues relating to our system of government. The course enables students to participate effectively in civic life through the examination of national and international political, social, and economic problems. Issues covered may include the Constitution and Bill of Rights, campaigns and elections, and controversial topics such as immigration reform, healthcare, capital punishment, and gun control. Students participate in a variety of activities including group and individual projects, research, simulations and oral presentations.

Diversity & Social Justice

Course	Credits	Suggested Grade Level
S552	.5	11,12

Prerequisites:

This course is designed to engage students in enriching and meaningful conversations regarding diversity, the law and social justice issues. Through the use of case studies, individual research, group discussion and debate students will examine concepts of justice, conflict and social change. Students will examine the cultural and historical contributions of different groups to the development of American society. Additionally, students will explore how economics, media, and political and social institutions create challenges for achieving and addressing social justice issues. The purpose of the course is contribute to the development of actively engaged citizens who possess an understanding of the increasingly complex issues of the modern world.

Economics



Course	Credits	Suggested Grade Level
S505	.5	11,12

Prerequisites:

This course is designed for students who have an interest in the US economic system. Students will explore the philosophy, history and evolution of economic thought, the development of economic theories and the interpretation of data. Students will learn about prominent economic pioneers, explore the impact of current events on the American economic system, and uncover economic influences on pop culture, politics, and social policies. Classroom activities may include lecture, discussion, simulations, problem-solving activities, research and presentations.



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Social Studies

IB Business Mgt HL Y2

Course	Credits	Suggested Grade Level
I940	1	12

Prerequisites: Completion of IB Business Mgt HL Y1

The IB Business Management course, a two-year course, is designed to develop students' knowledge and understanding of business management theories, as well as their ability to analyze, evaluate, and discuss business activities at local, national, and international levels. The course covers a range of organizations from all sectors, as well as the socio-cultural and economic contexts in which those organizations operate. The aim of this course is to develop a holistic understanding of business management, which includes finance, accounting, marketing, operations, and human resources. Through the exploration of six concepts underpinning the subject (change, culture, ethics, globalization, innovation, and strategy), the business management course allows students to develop their understanding of interdisciplinary concepts from a business management perspective.

IB History of Americas HL Y2

Course	Credits	Suggested Grade Level
I943	1	12

Prerequisites: Completion of IB History of Americas HL Y1

The History of the Americas course is a two-year course, which will include a study of global history and issues, with an emphasis on Canada, Latin America, and the United States. Students will study a variety of historical periods and events, including the Great Depression, World War 2, the Cold War, and civil rights and civil liberties. This course is designed to promote and enhance a student's critical thinking skills, and to allow students to learn history by investigating multiple perspectives and making comparisons over time.

Psychology

Course	Credits	Suggested Grade Level
S523	.5	11,12

Prerequisites:

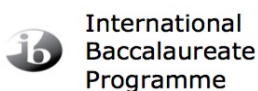
This course is designed to introduce students to the systemic and scientific study of the behavior and mental processes of human beings and other animals. Students examine the ethical practices and responsibilities of psychological inquiry and come to an understanding of the biological, social, and cultural influences on human behavior. Students will apply their knowledge through simulations and projects dealing with psychological situations in everyday life. This course has an emphasis on collaborative learning and discussion. Students participate in a variety of activities including but not limited to, primary source analysis and written response assessments, multiple choice assessments, class discussion, and large & small group collaborative assessments.

Sociology

Course	Credits	Suggested Grade Level
S503	.5	11,12

Prerequisites:

In this course, students study the complex relationship between groups and society. The course focuses on the use of sociological perspectives to examine the components of culture, social structure and institutions, and social inequality. There is an academic exploration of our changing global society and modern-day challenges. Varying perspectives on modern sociological topics will be explored. Students may participate in a variety of activities, included but not limited to, class discussion, large & small group projects, and primary source analysis and written response.



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Technology Education Program

Technology Education is the means by which we teach Technology, which is found in the Pennsylvania Academic Standards for Science and Technology. Technology Education is a body of knowledge separate from, but related to, the sciences, with specific content and curriculum. Technology is the application of tools, materials, processes and systems by humans to solve problems and provide benefits to humankind. We use technology in an attempt to improve our living and working environment.

Technology Education involves a broad spectrum of knowledge and activities. Technology Education combines knowledge of content, processes and skills to provide students with a holistic approach to learning. Technology Education offers unique opportunities to apply numerous academic concepts through practical minds-on/hands-on applications. The relationship between science and technology is where science builds principles or theories and technology provides the practical application of those principles or theories.

**For more information visit: <http://www.scasd.org/Page/32624>

Technology Education Program

Program	9th Grade	10th Grade	11th Grade	12th Grade
Materials, Engineering and Processes	Materials Processing 1	Materials Processing 1 Materials Processing 2	Materials Processing 1 Materials Processing 2 Materials Processing 3 Adv Tech Research & Design	Materials Processing 1 Materials Processing 2 Materials Processing 3 Adv Tech Research & Design
Visual Communications Technologies	Computer Graphics 1 Comp Eng Graphics 2 Video Media Tech	Computer Graphics 1 Comp Eng Graphics 2 Video Media Tech Adv Comp Eng Graph Adv Coding & Game Dev	Computer Graphics 1 Comp Eng Graphics 2 Video Media Tech Adv Comp Eng Graph Adv Coding & Game Dev	Computer Graphics 1 Comp Eng Graphics 2 Video Media Tech Adv Comp Eng Graph Adv Coding & Game Dev

Tech Ed

Computer Graphics 1

Course	Credits	Suggested Grade Level
S554	.5	09-12

Prerequisites:

This course is a hands-on, project oriented class, with several take home and personalized projects with (No Homework). It offers a fantastic way to be introduced to a variety of computer graphic and engineering software packages and concepts. These software packages will be used to develop 2D and 3D model animations, image designs, 3D prototypes, 3D prints, laser etch/cut designs, and for coding and video game development. The goal is to enhance and develop skills for all State High graduates, as you enter an increasingly technological world. These experiences will prepare you for postsecondary majors in engineering fields, computer science, video game design, film production, industrial design, and a host of other STEM related majors.

Software packages introduced in this course include: Autodesk's 3D Studio and AutoCAD, Solidworks, Adobe Photoshop and Illustrator, 3D printing applications, and Unity. This course is a prerequisite for Computer Engineering Graphics 2 and Advanced Coding and Game Development.

For more information, visit: <https://www.scasd.org/teched/troyalesi>

Comp Engineering Graphics 2

Course	Credits	Suggested Grade Level
S555	.5	09-12

Prerequisites: Computer Graphics 1

This is a follow-up course to Computer Graphics 1, which will make deeper connections to software and problem solving skills, you were introduced to in Computer Graphics 1. You will now build depth in ability, content, and knowledge, as we use these skills in several new and exciting units. In one project, we will be working with the engineering department at Penn State, on a 3D STEM design challenge. In another unit, you will design an architectural 3D floor plan in Autodesk Revit, including: walls, windows, doors, floor, ceiling, and roof. You will fully furnish and accessorize your design to model your ideal living space. You will make this a live and interactive walkthrough animation, and post it to the web. In another project, you will bring several programs together, as you will model the star character of a video game in 3D Studio. Textures will be created in Adobe Photoshop, and the video game will be created in Unity 3D, and built and published to the web. These projects and others, will be posted to an online portfolio set up in Wix.com. There you will have a live, interactive showcase of your work.

Throughout your experience, we will continue to make connections to various fields of study, including, but not limited to: engineering fields, computer science, video game design, film and video production, web design, and a host of other STEM design majors. All work to be completed in class (No Homework).

Adv Coding & Game Dev

Course	Credits	Suggested Grade Level
Y831	1	10-12

Prerequisites: Computer Graphics 1

In this exciting course, you will model, texture, animate, light, and code to create interactive video games. Scenes will be developed in 3D Studio Max. Photoshop will be used to develop textures, Adobe Audition will be used to edit and create sound effects. These assets will be imported into our game engine software, Unity, and coded using Microsoft Visual Studio, in the C# language. Learn to design and build interactive games including: health systems, game HUDs, and game controllers while we go from skill builder projects, to team designed, full featured games. You will publish work to multiple platforms, including in a web format for game sharing and posting. We will also explore PC, Android, and virtual reality formats. This is a weighted course, with an emphasis on documenting game and coding development using a web portfolio platform. Other than portfolio documentation, All work to be completed in class.

To see Games created by our students visit: <https://www.scasd.org/CodingandGamesinCG>



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Tech Ed

Adv Comp Eng Graph

Course	Credits
Y551	1

Suggested Grade Level 10-12

Prerequisites: Computer Graphics 1 & Computer Engineering Graphics 2

This 3rd course in the sequence, is a weighted academic course. The units and projects in this course are meant to take your skills to the next level, as you work on research and design problems, motion graphics and visual effects, and employ the engineering problem solving process on individual and team projects. In an opening project, your skills will be put to the test as you will be challenged to design an amphibious vehicle which will be raced on pavement, and in the water of our local pool. In another project, you will personally CAD design a laser cut/etched "holiday-themed" house model, to have as personalized take home project. Building on our connection with the Penn State Engineering department, we will look to team design, larger, 3D printed and laser cut solutions to STEM design challenges.

Throughout the course, you may have the need to use various table top tools and machines, along with computer modeling and animation software, to arrive at solutions to these STEM design challenges. Throughout the year, we will explore college majors, and schools, while final projects will be presented using an online web based portfolio. Many students use these portfolios for college application, or for scholarship consideration in design fields. All work to be completed in class.

Adv Tech Research & Design

Course	Credits
Y832	1

Suggested Grade Level 11-12

Prerequisites: Two courses in Technology Education sequence with a "C" average or better

This course provides an opportunity for students to apply research, engineering, and making skills in a STEM Lab to develop solutions to complex problems. Using the Engineering Design Process, students will conduct research on a specific problem in their area of interest, gather ideas, and brainstorm possible solutions to birth innovation. A lab space with state-of-the art technology in laser cutting and engraving, CNC machining, 3D printing, and subtractive manufacturing processes will be available to construct a working product.

Students are encouraged to utilize this course to fulfil parallel goals, such as TSA projects, completing SLC or college portfolios, a graduation project, or community service. The final presentation in this course will aid in documenting students' time, efforts, and creative pursuits, which may be valuable to colleges and employers who seek individuals with real-world problem-solving skills. <https://www.scasd.org/Page/34892>

Materials Processing 1

Course	Credits
S570	.5

Suggested Grade Level 09-12

Prerequisites: Interest in using tools to make things and solve problems

Materials Processing 1 is a hands-on course open to all interested students; no prior experience is necessary. Focusing on the "T" and "E" of STEM, students in this course can develop lifelong skills in the safe use of tools and machines, sketching and project planning, and woodworking while making guided and student-selected projects. Concepts from Math and Science are also utilized in measuring and the design process. In a state-of-the-art facility, students will have the opportunity to utilize professional-grade tools and machines and new technologies such as CNC machines and a laser cutter/ engraver.

By enrolling in this exciting hands-on, project-oriented class, students can develop practical skills, learn how to solve problems, and create valuable projects to be taken home to enjoy. www.scasd.org/Page/32618



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Tech Ed

Materials Processing 2

Course	Credits
Y572	1

Suggested Grade Level 10-12

Prerequisites: Successful completion of Materials Processing 1 with a grade of "C" or better

Materials Processing 2 is a hands-on course to further develop skills presented in Materials Processing 1. Focusing on the "T" and "E" of STEM, students can continue developing lifelong skills in the safe use of tools and machines, sketching and project planning, and woodworking while making student-selected projects. Additional techniques will be presented in machining, joinery, and finishing. Projects will incorporate the use of more advanced equipment such as a full-size CNC router and lathe, hand-held CNC router, and laser cutter and engraver. A problem-solving challenge will also be assigned during the length of the course where students design and construct a project that meets specific goals and helps others. There will be opportunities to use your skills for community service hours as well.

By enrolling in this exciting hands-on, project-oriented class, students can continue developing practical skills, learn how to solve problems and make repairs, and create valuable projects to be taken home to enjoy. www.scasd.org/Page/32618

Materials Processing 3

Course	Credits
Y573	1

Suggested Grade Level 11-12

Prerequisites: Successful completion of Materials Processing 2 with a grade of "C" or better

Materials Processing 3 is designed for students skilled in the use of tools, machines, and techniques, as presented in Materials Processing 2. Using those skills, along with automated manufacturing processes, students will work together to form an enterprise to create and sell finished products. Beginning with a survey and research on community needs, prototypes will be developed and tested to create the best possible solution. Once a design has been selected and produced, those items could be sold to pay for material and production costs, including the cost of the projects taken home by students. Opportunities for individual, student-select projects will also be available during this course. Student-selected projects should illustrate the principles of good design, methods of joinery and skills learned from the previous materials processing course.

By enrolling in this exciting hands-on, project-oriented class, students can continue developing practical skills, learn how to work in a team, earn community service hours, and create valuable projects to be taken home to enjoy. www.scasd.org/Page/32618

Video Media Tech

Course	Credits
S565	.5

Suggested Grade Level 09-12

Prerequisites:

This elective explores the process of writing, shooting and editing video productions using the latest technology in video and film effects. This is a hands-on course to produce a variety of video and media productions. Play the role of screenwriter, director, and cinematographer as you create projects to entertain and inform using Adobe Photoshop, Premiere, After Effects, Illustrator, and Audition. Classroom resources available to you include; non-linear editing software, cameras available for checkout, sound production equipment, and the latest video production technology including Gimbals, an aerial videography drone, and 360-degree cameras. Create stunning student-made videos from beginning to end. Learn how to implement green screen technology, motion graphics, title sequences, video effects and professional camera techniques into your productions. Produce teacher-assigned and student-selected projects as you share finished video productions with family, friends, and classmates through a Web-based portfolio. For example projects check out this link: www.scasd.org/teched/vmt



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World Languages Program

Why Study Languages?

Besides developing the skills necessary to communicate with people of another culture and learning about the culture and history of other regions of the world, research has shown that....

- The study of languages can aid in the development of reading and the ability to hypothesize in science.
- There is a correlation between language study and higher scores on the SAT and ACT tests, as well as higher academic performance in college.
- There is a correlation between bilingualism and memory skills, problem-solving ability and improved verbal and spatial abilities

The study of World Languages develops the skills of listening, speaking, reading and writing in a cultural context, which leads to functional competency in the chosen language. Students are required to actively participate in the target language in each course.

State College Area High School offers courses in six languages: Arabic, Chinese, French, German, Latin and Spanish.

Note: Parents or students, in particular those who are new to the district, should contact the World Languages coordinator, Amanda Showers (aks14@scasd.org), with questions regarding appropriate placement in the high school courses.

All language courses count as elective credit(s) for all Student Learning Communities (SLCs)

Program	9 th Grade	10 th Grade	11 th Grade	12 th Grade
Arabic	Arabic 1	Arabic 1 Arabic 2	Arabic 1 Arabic 2	Arabic 1 Arabic 2
Chinese	Chinese 1	Chinese 1 Chinese 2	Chinese 1 Chinese 2 Chinese 3	Chinese 1 Chinese 2 Chinese 3 AP Chinese Lang & Culture
French	French 1 French 2	French 1 French 2 French 3	French 1 French 2 French 3 Advanced French 4 IB Language ab initio French SL IB Language B French SL / HL	French 1 French 2 French 3 Advanced French 4 AP French Lang & Culture IB Language ab initio French SL IB Language B French SL / HL
German	German 1 German 2	German 1 German 2 German 3	German 1 German 2 German 3 Advanced German 4 IB Language ab initio German SL IB Language B German SL / HL	German 1 German 2 German 3 Advanced German 4 AP German Lang & Culture IB Language ab Initio German SL IB Language B German SL / HL

Program	9th Grade	10th Grade	11th Grade	12th Grade
Latin	Latin 1	Latin 1 Latin 2	Latin 1 Latin 2 Advanced Latin Lit A Advanced Latin Lit B IB Classical Lang Latin SL / HL	Latin 1 Latin 2 Advanced Latin Lit A Advanced Latin Lit B IB Classical Lang Latin SL / HL
Spanish	Spanish 1 Spanish 2	Spanish 1 Spanish 2 Spanish 3	Spanish 1 Spanish 2 Spanish 3 Advanced Spanish 4 IB Language B Spanish SL / HL	Spanish 1 Spanish 2 Spanish 3 Advanced Spanish 4 AP Spanish Lang & Culture IB Language B Spanish SL / HL

World Languages

Arabic 1

Course	Credits
Y322	1

Suggested Grade Level 09-12
Prerequisites:

In Arabic 1, students will learn the basic structures of Arabic and their uses in everyday communication. The course focuses on the alphabet and spelling conventions of Modern Standard Arabic, as well as the four communication skills: listening, speaking, reading and writing. Students become aware of the multiplicity of the Arabic language in order to prepare them for the complex reality of the language. Students will study topics related to self, daily life and Arabic culture.

Chinese 1

Course	Credits
Y323	1

Suggested Grade Level 09-12
Prerequisites:

In Chinese1, students develop international-mindedness through the study of language, culture, and issues of global significance. Students learn to communicate in Chinese as well as develop an understanding of how language works. Students advance their communication skills through listening, reading, writing and speaking activities related to academic and personal interests. For the development of receptive skills, students study authentic texts that explore the culture of China.

French 1

Course	Credits
Y328	1

Suggested Grade Level 9
Prerequisites:

In French 1, students develop international-mindedness through the study of language, culture, and issues of global significance. Students learn to communicate in French as well as develop an understanding of how language works. Students advance their communication skills through listening, reading, writing and speaking activities related to academic and personal interests. For the development of receptive skills, students study authentic texts that explore the culture of francophone countries.

German 1

Course	Credits
Y329	1

Suggested Grade Level 9
Prerequisites:

In German 1, students develop international-mindedness through the study of language, culture, and issues of global significance. Students learn to communicate in German as well as develop an understanding of how language works. Students advance their communication skills through listening, reading, writing and speaking activities related to academic and personal interests. For the development of receptive skills, students study authentic texts that explore the culture of German-speaking countries.

Latin 1

Course	Credits
Y312	1

Suggested Grade Level 09-12
Prerequisites:

Students in Latin 1 will travel through time—they will explore the history, culture, and mythology of the ancient Romans through learning and using the language of the Romans, Latin. By reading stories in Latin, they will develop skills in vocabulary building, reading strategies, and critical thinking, while learning the fundamentals of the Latin language as well as making connections to modern languages. Students will learn about the Roman family, gods and goddesses, country life, early Roman history, politics, and the city of Rome, and will critically examine the role of these topics in today's society.



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World Languages

Spanish 1

Course	Credits
Y330	1

Suggested Grade Level 9

Prerequisites:

In Spanish 1, students develop international-mindedness through the study of language, culture, and issues of global significance. Students learn to communicate in Spanish. In doing so, they also develop an understanding of how language works. Students expand their communication skills through listening, reading, writing and speaking activities related to academic and personal interests. For the development of receptive skills, students study authentic texts that explore the culture of Spanish-speaking countries.

Arabic 2

Course	Credits
Y324	1

Suggested Grade Level 10-12

Prerequisites: Successful completion of Arabic 1.

In Arabic 2, students continue to learn the structures of Arabic and their uses in everyday communication. They will review the alphabet and spelling conventions of Modern Standard Arabic and continue developing the four language skills: listening, speaking, reading and writing. Students will continue to study topics related to self, daily life, the world, and Arabic culture. Instructional methods are in line with current best teaching practices, including the use of technology and the inclusion of cultural concepts and how they are embedded in language.

Chinese 2

Course	Credits
Y325	1

Suggested Grade Level 10-12

Prerequisites: Chinese 1

In Chinese 2, students continue to develop international-mindedness through the study of language, culture, and issues of global significance. Students advance their communication skills across time through listening, reading, writing and speaking activities related to academic and personal interests. For the development of receptive skills, students study authentic texts that explore the culture of China.

French 2

Course	Credits
Y302	1

Suggested Grade Level 09-12

Prerequisites: Successful Completion of French 1

In French 2, students continue to develop international-mindedness through the study of language, culture, and issues of global significance. Students advance their communication skills, including expressing past and future time frames, through listening, reading, writing and speaking activities related to academic and personal interests. For the development of receptive skills, students study authentic texts that explore the culture of francophone countries.

German 2

Course	Credits
Y308	1

Suggested Grade Level 09-12

Prerequisites: Successful Completion of German 1

In German 2, students continue to develop international-mindedness through the study of language, culture, and issues of global significance. Students advance their communication skills, including expressing past and future time frames, through listening, reading, writing and speaking activities related to academic and personal interests. For the development of receptive skills, students study authentic texts that explore the culture of German-speaking countries.



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World Languages

Latin 2

Course	Credits
Y313	1

Suggested Grade Level 10-12
Prerequisites: Successful Completion of Latin 1.

Students in Latin 2 will continue to explore new topics on the history, culture, and mythology of ancient Rome through learning and using the Latin language. By reading stories in Latin including a first taste of authentic Latin literature, they will develop skills in vocabulary building, reading strategies, and critical thinking, while extending their knowledge of the Latin language and making connections to modern languages. Students will learn about the city of Rome, Roman dinner parties, the fall of the Roman Republic and the formation of the Empire, rites of passage, and mythology.

Spanish 2

Course	Credits
Y318	1

Suggested Grade Level 09-12
Prerequisites: Successful Completion of Spanish 1

In Spanish 2, students continue to develop international-mindedness through the study of language, culture, and issues of global significance. Students advance their communication skills including expressing past and future time frames through listening, reading, writing and speaking activities related to academic and personal interests. For the development of receptive skills, students study authentic texts that explore the culture of Spanish-speaking countries.

Chinese 3

Course	Credits
Y326	1

Suggested Grade Level 11-12
Prerequisites: Chinese 2

In Chinese 3, students continue to develop international-mindedness through the study of language, culture, and issues of global significance. The course develops students' awareness and appreciation of cultural products, practices, and perspectives through a variety of authentic materials including current events, fine arts, films, and technology. Students will apply communication skills in real-life situations including vocabulary usage, language control, communication strategies, and cultural awareness.

French 3

Course	Credits
Y303	1

Suggested Grade Level 10-12
Prerequisites: Successful Completion of French 2.

In French 3, students continue to develop international-mindedness through the study of language, culture, and issues of global significance. The course develops students' awareness and appreciation of cultural products, practices, and perspectives through a variety of authentic materials including current events, fine arts, films, and technology. Students will apply communication skills in real-life situations including vocabulary usage, language control, communication strategies, and cultural awareness.

German 3

Course	Credits
Y309	1

Suggested Grade Level 10-12
Prerequisites: Successful Completion of German 2.

In German 3, students further develop and refine an understanding of the cultures of the German-speaking world through various topics, creative writing skills as well as their listening and speaking competencies. Class is conducted in German and students are expected to participate actively in whole-class and/or small group discussions.



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World Languages

Spanish 3

Course	Credits
Y319	1

Suggested Grade Level 10-12
Prerequisites: Successful Completion of Spanish 2.

In Spanish 3, students continue to develop international-mindedness through the study of language, culture, and issues of global significance. The course expands students' ability to examine and appreciate cultural products, practices, and perspectives through a variety of authentic materials from the Spanish-speaking world, including current events, fine arts, film, and technology. Students will apply communication skills in real-life situations such as vocabulary usage, language control, communication strategies, and cultural awareness.

Adv French 4

Course	Credits
Y304	1

Suggested Grade Level 11-12
Prerequisites: Successful completion of French 3.

Students expand and refine their communicative, cultural, and grammatical competencies in French through exploring the relationships between francophone cultures and the students' own cultures. Students learn to recognize and demonstrate an awareness of the interrelatedness of languages, literatures, and cultures through knowledge of the artifacts, expressions, and traditions of French speakers around the world.

Adv German 4

Course	Credits
Y310	1

Suggested Grade Level 11-12
Prerequisites: Successful completion of German 3.

In Advanced German 4, discussions are conducted in German on selected topics from the text and supplemental reading materials. In order to achieve greater fluency in speaking and writing, students focus on intensive practice of proper structure and usage. Assessments include written summaries of German short stories, guided compositions, quizzes and tests.

Adv Spanish 4

Course	Credits
Y320	1

Suggested Grade Level 11-12
Prerequisites: Successful Completion of Spanish 3.

This advanced, weighted course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness.

The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions). It engages students in an exploration of culture in both contemporary and historical contexts.

To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish.

Adv Latin Lit A

Course	Credits
Y314	1

Suggested Grade Level 11-12
Prerequisites: Successful completion of Latin 2.

Students in Advanced Latin Literature will explore universal elements of the human condition—creation, love, hubris, greed, and war—through the study of Roman civilization and the great works of Latin literature. Students will read mythological tales of transformation from Ovid's *Metamorphoses*, as well as selections of literature on the themes of love poetry and villains. Students will also analyze primary sources to understand how Classical civilizations perceived the world. Ultimately, through the study of the Classical past, students will gain new perspectives on today's world and on the future.



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Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

World Languages

Adv Latin Lit B



Course	Credits
Y315	1

Suggested Grade Level 11-12
Prerequisites: Successful completion of Latin 2.

Students in Advanced Latin Literature will explore universal elements of the human condition—creation, love, hubris, greed, and war—through the study of Roman civilization and the great works of Latin literature. Students will read mythological tales of transformation from Ovid's *Metamorphoses*, as well as selections of literature on the themes of love poetry and villains. Students will also analyze primary sources to understand how Classical civilizations perceived the world. Ultimately, through the study of the Classical past, students will gain new perspectives on today's world and on the future.

AP Chinese Lang & Culture



Course	Credits
Y327	1

Suggested Grade Level 09-12
Prerequisites: Chinese 3

AP Chinese Language and Culture is a course that covers the equivalent of a second-year (and/or fourth-semester) college Chinese course. It includes aural/oral skills, reading comprehension, grammar, and composition. The AP Chinese course is designed to provide students with varied opportunities to further develop their language proficiency across the three communicative modes—interpersonal (speaking, listening, reading, and writing skills), interpretive (listening and reading skills), and presentational (speaking and writing skills)—in real-life situations as they explore concepts related to family and community, personal and public identity, beauty and aesthetics, science and technology, contemporary life, and global challenges.

AP French Lang & Culture



Course	Credits
Y305	1

Suggested Grade Level 12
Prerequisites: Successful Completion of Advanced French 4.

The AP French Language and Culture course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP French Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in French.

The AP French Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

AP German Lang & Culture



Course	Credits
Y311	1

Suggested Grade Level 12
Prerequisites: Successful Completion of Advanced German 4.

The AP German Language and Culture course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP German Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in German.

The AP German Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).



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Course Number Key

H- Hybrid Y- Year-Long
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World Languages

AP Spanish Lang & Culture

Course	Credits	Suggested Grade Level
Y321	1	12

Prerequisites: Successful Completion of Advanced Spanish 4.

The AP Spanish Language and Culture course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP Spanish Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish.

The AP Spanish Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

IB Classical Lang Latin HL Y1

Course	Credits	Suggested Grade Level
I959	1	11-12

Prerequisites: Latin 2

Students in Advanced Latin Literature will explore universal elements of the human condition—creation, love, hubris, greed, and war—through the study of Roman civilization and the great works of Latin literature. Students will read mythological tales of transformation from Ovid's *Metamorphoses*, as well as selections of literature on the themes of love poetry and villains. Students will also analyze primary sources to understand how Classical civilizations perceived the world. Ultimately, through the study of the Classical past, students will gain new perspectives on today's world and on the future.

This course represents the first year of IB Classical Languages: Latin.

IB Classical Lang Latin HL Y2

Course	Credits	Suggested Grade Level
I960	1	12

Prerequisites: Completion of Classical Lang Latin HL Y1

Students in IB Classical Languages: Latin, a two-year course, will explore universal elements of the human condition—creation, love, hubris, greed, and war—through the study of Roman civilization and the great works of Latin literature. Students will read mythological tales of transformation from Ovid's *Metamorphoses*, as well as selections of literature on the themes of love poetry and villains. Students will also choose a topic on the Classical world, and will compile and analyze primary sources to understand how Classical civilizations perceived the world. Ultimately, through the study of the Classical past, students will gain new perspectives on today's world and on the future.

IB Classical Lang Latin SL Y1

Course	Credits	Suggested Grade Level
I957	1	11-12

Prerequisites: Latin 2

Students in Advanced Latin Literature will explore universal elements of the human condition—creation, love, hubris, greed, and war—through the study of Roman civilization and the great works of Latin literature. Students will read mythological tales of transformation from Ovid's *Metamorphoses*, as well as selections of literature on the themes of love poetry and villains. Students will also analyze primary sources to understand how Classical civilizations perceived the world. Ultimately, through the study of the Classical past, students will gain new perspectives on today's world and on the future.

This course represents the first year of IB Classical Languages: Latin.

World Languages

IB Classical Lang Latin SL Y2

Course	Credits	Suggested Grade Level
I958	1	12

Prerequisites: Completion of IB Lang Latin SL Y1

Students in Advanced Latin Literature will explore universal elements of the human condition—creation, love, hubris, greed, and war—through the study of Roman civilization and the great works of Latin literature. Students will read mythological tales of transformation from Ovid's *Metamorphoses*, as well as selections of literature on the themes of love poetry and villains. Students will also analyze primary sources to understand how Classical civilizations perceived the world. Ultimately, through the study of the Classical past, students will gain new perspectives on today's world and on the future.

This course represents the first year of IB Classical Languages: Latin.

IB Lang ab initio French SL Y1

Course	Credits	Suggested Grade Level
I961	1	11-12

Prerequisites:

This course represents the first year of IB ab initio: French. Students will engage in activities specific to assessment preparation and work to develop the skills needed to succeed on the different parts of the IB exams. To earn the weighted credits, students must complete all requirements of this IB course.

IB Lang ab initio French SL Y2

Course	Credits	Suggested Grade Level
I964	1	12

Prerequisites: IB Lang ab initio French SL Y1

This course represents the second year of IB ab initio: French. Students will engage in activities specific to assessment preparation and work to develop the skills needed to succeed on the different parts of the IB exams. To earn the weighted credits, students must complete all requirements of this IB course.

IB Lang ab initio German SL Y1

Course	Credits	Suggested Grade Level
I962	1	11-12

Prerequisites:

This course represents the first year of IB ab initio: German. Students will engage in activities specific to assessment preparation and work to develop the skills needed to succeed on the different parts of the IB exams. To earn the weighted credits, students must complete all requirements of this IB course.

IB Lang ab initio German SL Y2

Course	Credits	Suggested Grade Level
I965	1	12

Prerequisites: IB Lang ab initio German SL Y1

This course represents the second year of IB ab initio: German. Students will engage in activities specific to assessment preparation and work to develop the skills needed to succeed on the different parts of the IB exams. To earn the weighted credits, students must complete all requirements of this IB course.



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World Languages

IB Lang ab initio Spanish SL Y1

Course	Credits	Suggested Grade Level
I963	1	11-12

Prerequisites:

This course represents the first year of IB ab initio: Spanish. Students will engage in activities specific to assessment preparation and work to develop the skills needed to succeed on the different parts of the IB exams. To earn the weighted credits, students must complete all requirements of this IB course.

IB Lang ab initio Spanish SL Y2

Course	Credits	Suggested Grade Level
I966	1	12

Prerequisites: IB Lang ab initio Spanish SL Y1

This course represents the second year of IB ab initio: Spanish. Students will engage in activities specific to assessment preparation and work to develop the skills needed to succeed on the different parts of the IB exams. To earn the weighted credits, students must complete all requirements of this IB course.

IB Language B French HL Y1

Course	Credits	Suggested Grade Level
I947	1	11-12

Prerequisites: French 3

Students expand and refine their communicative, cultural, and grammatical competencies in French through exploring the relationships between francophone cultures and the students' own cultures. Students learn to recognize and demonstrate an awareness of the interrelatedness of languages, literatures, and cultures through knowledge of the artifacts, expressions, and traditions of French speakers around the world.

IB Language B French HL Y2

Course	Credits	Suggested Grade Level
I948	1	12

Prerequisites: Completion of IB Language B French HL Y1

Students in French, a two-year course, will continue to expand on previously learned communicative, cultural and grammatical concepts by exploration of various cultural contexts in Francophone cultures and within the student's own culture. Students will learn to recognize and demonstrate an awareness of the interrelatedness of languages, literature, and cultures through knowledge of the artifacts, expressions, and traditions of Francophone cultures. Students will learn to use a variety of strategies to effectively communicate in French while exploring the five prescribed themes.

This course represents the second year of IB Language B: French.

IB Language B French SL Y1

Course	Credits	Suggested Grade Level
I945	1	11-12

Prerequisites: French 3

Students expand and refine their communicative, cultural, and grammatical competencies in French through exploring the relationships between francophone cultures and the students' own cultures. Students learn to recognize and demonstrate an awareness of the interrelatedness of languages, literatures, and cultures through knowledge of the artifacts, expressions, and traditions of French speakers around the world.



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World Languages

IB Language B French SL Y2

Course	Credits	Suggested Grade Level
I946	1	12

Prerequisites: Completion of IB Language B French SL Y1

Students in French, a two-year course, will continue to expand on previously learned communicative, cultural and grammatical concepts by exploration of various cultural contexts in Francophone cultures and within the student's own culture. Students will learn to recognize and demonstrate an awareness of the interrelatedness of languages, literature, and cultures through knowledge of the artifacts, expressions, and traditions of Francophone cultures. Students will learn to use a variety of strategies to effectively communicate in French while exploring the five prescribed themes.

This course represents the second year of IB Language B: French.

IB Language B German HL Y1

Course	Credits	Suggested Grade Level
I951	1	11-12

Prerequisites: German 3

Students expand and refine their communicative, cultural, and grammatical competencies in German through exploring the relationships between German-speaking cultures and the students' own cultures. Students learn to recognize and demonstrate an awareness of the interrelatedness of languages, literatures, and cultures through knowledge of the artifacts, expressions, and traditions of German speakers around the world. Class is conducted in German.

This course represents the first year of IB Language B: German.

IB Language B German HL Y2

Course	Credits	Suggested Grade Level
I952	1	12

Prerequisites: Completion of IB Language B German HL Y1

Students in German, a two-year course, will continue to expand on previously learned communicative, cultural and grammatical concepts by exploration of various cultural contexts in Germanic cultures and within the student's own culture. Students will learn to recognize and demonstrate an awareness of the interrelatedness of languages, literature, and cultures through knowledge of the artifacts, expressions, and traditions of Germanic cultures. Students will learn to use a variety of strategies to effectively communicate in German while exploring the five prescribed themes.

This course represents the second year of IB Language B: German.

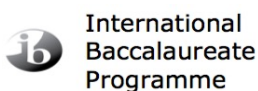
IB Language B German SL Y1

Course	Credits	Suggested Grade Level
I949	1	11-12

Prerequisites: German 3

Students expand and refine their communicative, cultural, and grammatical competencies in German through exploring the relationships between German-speaking cultures and the students' own cultures. Students learn to recognize and demonstrate an awareness of the interrelatedness of languages, literatures, and cultures through knowledge of the artifacts, expressions, and traditions of German speakers around the world. Class is conducted in German.

This course represents the first year of IB Language B: German.



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World Languages

IB Language B German SL Y2

Course	Credits
I950	1

Suggested Grade Level 12

Prerequisites: Completion of IB Language B German SL Y1

Students in German, a two-year course, will continue to expand on previously learned communicative, cultural and grammatical concepts by exploration of various cultural contexts in Germanic cultures and within the student's own culture. Students will learn to recognize and demonstrate an awareness of the interrelatedness of languages, literature, and cultures through knowledge of the artifacts, expressions, and traditions of Germanic cultures. Students will learn to use a variety of strategies to effectively communicate in German while exploring the five prescribed themes.

This course represents the second year of IB Language B: German.

IB Language B Spanish HL Y1

Course	Credits
I955	1

Suggested Grade Level 11-12

Prerequisites: Spanish 3

This advanced, weighted course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness.

The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions). It engages students in an exploration of culture in both contemporary and historical contexts.

To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish.

This course represents the first year of IB Language B: Spanish

IB Language B Spanish HL Y2

Course	Credits
I956	1

Suggested Grade Level 12

Prerequisites: Completion of IB Language B Spanish HL Y1

Students in Spanish, a two-year course, will continue to expand on previously learned communicative, cultural and grammatical concepts by exploration of various cultural contexts in Hispanic cultures and within the student's own culture. Students will learn to recognize and demonstrate an awareness of the interrelatedness of languages, literature, and cultures through knowledge of the artifacts, expressions, and traditions of Hispanic cultures. Students will learn to use a variety of strategies to effectively communicate in Spanish while exploring the five prescribed themes.

This course represents the second year of IB Language B: Spanish.



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World Languages

IB Language B Spanish SL Y1

Course	Credits	Suggested Grade Level
I953	1	11-12

Prerequisites: Spanish 3

This advanced, weighted course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness.

The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions). It engages students in an exploration of culture in both contemporary and historical contexts.

To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish.

This course represents the first year of IB Language B: Spanish

IB Language B Spanish SL Y2

Course	Credits	Suggested Grade Level
I954	1	12

Prerequisites: Completion of IB Language B Spanish SL Y1

Students in Spanish, a two-year course, will continue to expand on previously learned communicative, cultural and grammatical concepts by exploration of various cultural contexts in Hispanic cultures and within the student's own culture. Students will learn to recognize and demonstrate an awareness of the interrelatedness of languages, literature, and cultures through knowledge of the artifacts, expressions, and traditions of Hispanic cultures. Students will learn to use a variety of strategies to effectively communicate in Spanish while exploring the five prescribed themes.

This course represents the second year of IB Language B: Spanish.



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“The Senior & Junior Option”

The Senior Option is a privilege for twelfth grade students who are in good academic and disciplinary standing at the high school. Students who select and qualify for this option will be permitted to come to school after the first block or leave before the last block, depending on when they are scheduled for this offering. All students must schedule a minimum of 6 credits including students enrolled in the Senior Option.

Student Requirements/Criteria for The Senior Option:

- Successfully completed a minimum of 21-credits by the end of the junior year.
- Have a minimum cumulative grade point average (GPA) of 2.0.
- Have his/her own transportation to and/or from school.
- Administrative approval following a review of student discipline and attendance records.

The Junior Option is a privilege for eleventh grade students who are in good academic and disciplinary standing at the high school. Students who select and qualify for this option will be permitted to come to school after the first block or leave before the last block, depending on when they are scheduled for this offering. All students must schedule a minimum of 6.5 credits, including students enrolled in the Junior Option.

Student Requirements/Criteria for The Junior Option:

- Successfully completed a minimum of 14.25-credits by the end of the sophomore year.
- Have a minimum cumulative grade point average (GPA) of 2.0.
- Have his/her own transportation to and/or from school (**not guaranteed a parking pass**).
- Administrative approval following a review of student discipline and attendance records.

** Registering for The Senior or Junior Option and meeting the above requirements/criteria does not ensure admittance. Required classes may need to be scheduled during blocks that would prevent a student from scheduling the Senior or Junior Option.

Senior & Junior Option

Senior & Junior Option

Course	Credits	Suggested Grade Level
S180	.0000	11,12

Prerequisites:

The Senior Option is a privilege for twelfth grade students who are in good academic and disciplinary standing at the high school. Students who select and qualify for this option will be permitted to come to school after the first block or leave before the last block, depending on when they are scheduled for this offering. All students must schedule a minimum of 6 credits including students enrolled in the Senior Option.

Student Requirements/Criteria for The Senior Option:

- Successfully completed a minimum of 21-credits by the end of the junior year.
- Have a minimum cumulative grade point average (GPA) of 2.0.
- Have his/her own transportation to and/or from school.
- Administrative approval following a review of student discipline and attendance records.

The Junior Option is a privilege for eleventh-grade students who are in good academic and disciplinary standing at the high school. Students who select and qualify for this option will be permitted to come to school after the first block or leave before the last block, depending on when they are scheduled for this offering. All students must schedule a minimum of 6.5 credits, including students enrolled in the Junior Option.

Student Requirements/Criteria for The Junior Option:

- Successfully completed a minimum of 14.25-credits by the end of the sophomore year.
- Have a minimum cumulative grade point average (GPA) of 2.0.
- Have his/her own transportation to and/or **from school (not guaranteed a parking pass)**.
- Administrative approval following a review of student discipline and attendance records.

** Registering for The Senior or Junior Option and meeting the above requirements/criteria does not ensure admittance. Required classes may need to be scheduled during blocks that would prevent a student from scheduling the Senior or Junior Option.



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Career and Technical Center

State College Area High School Career and Technical Center

Introduction

State High's Career and Technical Center provides engaging, academically rigorous, and career-focused coursework and programs of study in a wide variety of content areas. A recommended program of study provides a roadmap for students to navigate educational options and prepare them to successfully transition into post-secondary education, careers, and lifelong learning. Post-secondary institutions and business/industry have been consulted and have contributed to the recommended programs of study related to their specific areas of expertise.

Programs of Study

Agricultural Science Architectural Drafting & Design Automotive Technology Building Construction Technology Business Management	Cisco Networking Academy Computer Programming Culinary Arts Diversified Occupations	Early Childhood Education Engineering Health Professions Sports Therapy & Exercise Science
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Explore the Possibilities

High school is a great time to explore new opportunities. Students are encouraged to consider the possibilities of potential college majors and future careers by investigating the many career-focused courses and programs of study State High offers. Students may discover a potential occupation, pastime, or student organization they had never before even considered. Course recommendations are only suggestions, not requirements, and students may choose courses from one or multiple programs, as well as change from one program to another based on interests and needs. In fact, students are encouraged to explore and experience any and all courses and programs in which they show interest, skill or even curiosity. Working closely with a counselor to carefully consider the available options will help ensure students meet their educational and career goals.

Agricultural Sciences

The Agricultural Science program is designed to help students develop skills and explore career areas related to agricultural sciences. This program explores topics in animal science, plant science, soil science, natural resources, agricultural mechanics and technology, food science, biotechnology, agribusiness and leadership. Students will explore these concepts through hands-on, real world applications, labs and activities in our mechanics shop, classroom greenhouse and throughout the school grounds. Students will acquire skills and knowledge necessary to meet their individual career objectives, occupational skills for gainful employment and leadership abilities to work effectively in groups and as a team. Additionally, this program provides opportunities for research and supervised work experience to meet the needs and interests of each student. Students may also choose to take college credits through our Dual Credit Options and may receive science credit for agriculture courses that they take. Students are encouraged to participate in our Career & Technical Student Organization, FFA which offers opportunities to develop premier leadership, personal growth and career success, as well as earn scholarships, grants, trips and local, state and national recognition for their efforts.

Agricultural Scope and Sequence
Foundations of Agriculture (Y620) Food Production (Y619) Natural Resources (Y624) Agricultural Mechanics & Tech (S631) Plant Science (Y626) Animal & Veterinary Sciences (Y623) CWE Ag Science (Y637) Supervised Ag Exp (SAE) (Y636 or S636)

Agricultural Sciences

Foundations of Agriculture

Course	Credits	Suggested Grade Level
Y620	1	09

Prerequisites:

Agriculture is all around us and we interact with it on a daily basis! In this course, students will explore what agriculture is and how it impacts our everyday life. Students will learn about career opportunities in the agricultural industry, develop career readiness skills and learn about the production and management of our agricultural resources. Specific areas of study will include; agricultural careers, FFA, leadership, communication, plant science, animal science, natural resources and agricultural mechanics. This course is a prerequisite for all other Agricultural courses and should be taken during a student's first year of high school. Students will become affiliate members of FFA and will also be automatically dual- enrolled in a Supervised Agricultural Experience course.

Food Production

Course	Credits	Suggested Grade Level
S639	.5	10

Prerequisites: Foundations of Agriculture

How does our food get from the farm to our fork? In this course, you will explore and learn about this fascinating process. Throughout the course, students will learn what it takes to produce, process, market and sell agriculture products for food. Emphasis will be placed on animal and plant related food, while also incorporating food safety, security and ethics. Specific areas of study include; livestock production (cattle, swine, poultry, etc.), agronomic crop production, food security, food safety, biotechnology, value added processing, and marketing. Students will become affiliate members of FFA and will also be automatically dual-enrolled in a Supervised Agricultural Experience course.

Natural Resources

Course	Credits	Suggested Grade Level
Y624	1	10

Prerequisites: Foundations of Agriculture

This course will focus on the management and restoration of our natural resources. Students will learn about the economic benefits of natural resource management, as well as the effect that using our natural resources has had on Earth's ecosystems, through real-world scenarios. Specific topics of study include; agroecology, Pennsylvania's wildlife (mammals, fish, etc.), forestry, aquatics and soils. Students will become affiliate members of FFA and will also be automatically enrolled in a Supervised Agricultural Experience course.

Agricultural Mechanics & Tech

Course	Credits	Suggested Grade Level
S631	.5	10

Prerequisites: Foundations of Agriculture

Students will be introduced to the basics of Agricultural Mechanics and the technology used in the Agricultural industry. Students will work in the classroom and lab area, to complete a combination of academic and hands- on tasks and assignments. Specific areas of study include: MIG and Electric Arc welding, small gas engines and agriculture construction. Additional topics may include masonry, GPS, precision agriculture, electrical wiring and/ or plumbing. Students will become affiliate members of FFA and will also be automatically dual- enrolled in a Supervised Agricultural Experience course.

Plant Science

Course	Credits	Suggested Grade Level
Y626	1	11

Prerequisites: Food Production, Agricultural Mechanics & Tech or Natural Resources

This course will introduce students to the horticulture and plant science industry through a series of hands-on labs and activities. Students will have the opportunity to work in the school's greenhouse and outdoors within the school grounds. Specific topics of study include: horticultural safety, soils, plant structure & function, plant reproduction, plant nutrition and floriculture. Students will become affiliate members of FFA and will also be automatically dual-enrolled in a Supervised Agricultural Experience course. *Students can request to receive Science credit for completing this course.



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Agricultural Sciences

Animal & Veterinary Sci

Course	Credits	Suggested Grade Level
Y623	1	12 Prerequisites: Plant Science or Horticulture

The animal and veterinary science industry is a growing field of study! This course is designed to provide students with an in-depth understanding of the animal industry and prepare them for a career in the animal or veterinary field. Labs and case studies will provide students with hands-on, real-world application of course content. Particular emphasis will be placed on the science behind animal agriculture, animal uses in historical and modern societies, anatomy and physiology, safety and sanitation, general animal care and animal ethics. Both small and large animals will be explored in this course. Students will become affiliate members of FFA and will also be automatically dual- enrolled in a Supervised Agricultural Experience course.

CWE Ag Science

Course	Credits	Suggested Grade Level
Y637	.5 to 2	12 Prerequisites: This course will not be available to students who are not enrolled as a secondary concentrator of the CTC program and have prior approval through the instructor.

The Career Work Experience (CWE) Course is only available to seniors who are enrolled in a related CTC course and have received instructor approval during the previous school year. This course allows graduating seniors to utilize the knowledge and skill that they developed through previous coursework and apply their expertise to real-world applications. CWE is designed to provide work based learning opportunities to culminate students' education and employability skills in a field related to their academic and career goals. The primary objective of this course is to promote workforce preparedness through strategic integration of classroom theory and occupational practice in an approved and supervised placement.

There are several CWE options for students to choose from including both on-site and off-site placements. Options can include: Cooperative Work Experience/Capstone (Job Placement or Internship), Teaching Assistant, and Independent Research. Each year the instructor will announce these opportunities to 11th grade students and facilitate a selection and placement process for the following school year. Students must complete this process within the designated timeframe to be considered for placement. Students will be hand-scheduled for this course by the instructor.

Supervised Ag Exp (SAE)

Course	Credits	Suggested Grade Level
Y636	1	09-12 Prerequisites: Must be enrolled in at least one other Agriculture Science Course.

Students enrolled in a state- approved Agricultural program are mandated by the state to maintain Supervised Agricultural Experiences (SAE's). SAE's provide students with real- world, career- oriented experiences that are geared toward the individual students' interests. This course provides students with an avenue to complete their Supervised Agricultural Experience, as well as participate as a member of FFA, the Agricultural student leadership organization. This course will be student- led, with teacher guidance provided. The format of this course will be a combination of out- of- school experiences, virtual lessons and in- person meetings with the teacher. Students may take this course multiple times

Supervised Ag Exp (SAE)

Course	Credits	Suggested Grade Level
S636	.5	09-12 Prerequisites: Must be enrolled in at least one other Agriculture Science Course.

Students enrolled in a state- approved Agricultural program are mandated by the state to maintain Supervised Agricultural Experiences (SAE's). SAE's provide students with real- world, career- oriented experiences that are geared toward the individual students' interests. This course provides students with an avenue to complete their Supervised Agricultural Experience, as well as participate as a member of FFA, the Agricultural student leadership organization. This course will be student- led, with teacher guidance provided. The format of this course will be a combination of out- of- school experiences, virtual lessons and in- person meetings with the teacher. Students may take this course multiple times



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Programme



CTC Course



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Keystone



Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

Architectural Drafting and Design

The Architectural Drafting and Design program provides students the opportunity to explore architecture and engineering fields of study and professions. Students will develop skills and proficiencies needed for employment as a draftsman and or post education in Architecture, Landscape Architecture, Engineering, Architectural Engineering and Interior Design. Lab oriented projects, construction site field trips and professional guest speakers occur throughout the school year. Competitive extracurricular activities with the Technology Student Association (TSA) and SkillsUSA allow students to further explore architecture and engineering.

Architectural Drafting and Design Courses

Arch Draft & Design 1 (S699)
Arch Draft & Design 2 (Y703)
Adv Arch Draft & Design 3 (Y706)
Adv Arch Draft & Design 4 (Y821)

Architectural Drafting and Design

Arch Draft & Design 1

Course Credits Suggested Grade Level 09-12
S699 .5 Prerequisites:

The course is the foundation of the Architectural Drafting and Design Program. In this lab oriented course, students learn the skills used daily in an architectural and engineering firm. Students will learn to represent objects with accepted drawing technique, practices, standards and 2D-Computer Aided Drafting (CAD). Students will also learn about interior design and have the opportunity to design a room per certain design criteria, as one does in an architectural or interior design firm. This course is recommended for those that want to explore careers in architecture, landscape architecture, architectural engineering or an engineering related field.

Arch Draft & Design 2

Course Credits Suggested Grade Level 10-12
Y703 1 Prerequisites: Arch Draft & Design 1

The course is a continuation of the Arch Drafting and Design 1 course. In this lab-oriented course, students will first complete a to-scale model of a State College landmark building. Their student will utilize the foundation skills from Arch 1 and add new skills to generate the model. Next, the student will begin to learn about residential construction. Students will design a home and prepare sketch bubble diagram floor plans as one would do in an architectural firm. The drawings will be critiqued by their fellow classmates and given suggestions of changes to be made. The floor plans will then be drafted in AutoCAD. The exterior elevations, various building details and the site plan will then be generated. Basic structural, mechanical, plumbing and electrical components will be introduced to the student.

Adv Arch Draft & Design 3

Course Credits Suggested Grade Level 10-12
Y706 1 Prerequisites: Arch Draft & Design 2

This is an advanced weighted course. Students will study the various building elements, loads, components, and systems, how they come together, and how they must be compatible and integrate with one another during design and construction of a building. Students develop projects that include model construction, detailed working drawings, presentation drawings and renderings. Problem-solving and design skills are strengthened and proficiency increased through the use of traditional drafting equipment, 2D-CAD and 3D-CAD (Computer Aided Drafting) modeling software. Students compile all of their projects to date into a professional portfolio for college application. A resume is also generated for after-school employment and job shadowing opportunities. Guest speakers come into the classroom and field trips are taken to project sites to provide "real-life experiences" for the students. This course is a prerequisite for Drafting: Advanced Architectural Drafting and Design 4.

Adv Arch Draft & Design 4

Course Credits Suggested Grade Level 12
Y821 1 Prerequisites: Adv Arch Draft & Design 3

This is an advanced weighted course. This course is to help Architectural Drafting and Design students strengthen and deepen their learning through community and project-based instruction to prepare for post-graduation employment and/or college. Students will investigate architectural, landscape architecture, architectural engineering and engineering pathways. Students will understand the path required to becoming a Registered Architect and Professional Engineer. Students will update their portfolio and resume, generate a cover letter, and learn interviewing skills. Students learn to apply "Art" to their projects, such as watercolors to a house design. Students will also have the opportunity to expand and/or improve on projects they did in the previous architectural classes.



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Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
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V- Virtual I- IB Programme

Automotive Technology

Automotive Technology students prepare to service and maintain all types of automobiles and light trucks. The course work also emphasizes the development of skills in diagnostic and test procedures. Students learn how to perform four-wheel alignments, steering and suspension service, brake service, electronic fuel injection and computer operated control systems. Live work will occur on both school and customer cars. Automotive Technology classes meet every day for a single block for the whole year. Graduates are highly qualified to enter the automotive field as entry-level service technicians. Students who pursue advanced technical training at the post-secondary level will find an array of opportunities in service, management, and entrepreneurship. To apply their classroom knowledge and skills, Automotive students operate Little Lion Auto Care.

Automotive Technology Courses

Auto Tech 1 (Y640)
Auto Tech 2 (Y641)
Auto Tech 3 (Y643)
Adv Auto Tech 4 (Y644)
CWE Auto Tech (Y645)

Auto Technology

Auto Tech 1



Course	Credits
Y640	2

Suggested Grade Level 09-10
Prerequisites:

This course, that meets every day for a single block for the whole year, provides an introduction to the automobile and a history of the automotive industry. The following topics are covered: tool identification, use and safety; teamwork training; an introduction to automotive service; exploration of careers within the automotive industry; tire service and computerized wheel balancing; introduction to Automotive Service Excellence (ASE); and workplace safety and auto-shop housekeeping, Steering and suspension, two and four wheel alignment, and brakes. Students are required to wear safety glasses, steel-toed leather boots, and the standard Automotive Technology uniform.

Auto Tech 2



Course	Credits
Y641	2

Suggested Grade Level 10-11
Prerequisites: Automotive Technology 1

This course, that meets every day for a single block for the whole year, covers automotive systems, study of the design and function of cooling systems, electrical systems, starting, charging, exhaust/ emissions systems, engine rebuild and engine precision measurements. Students are introduced to Automotive computer system diagnostics, engine performance and electrical circuits and meters. Preparation for Automotive Service Excellence (ASE) certification tests and an introduction to Pennsylvania inspection code are provided. Students learn how to find and use printed and computerized technical service information. Students are required to wear safety glasses, steel-toed leather boots, and the standard Automotive Technology uniform.

Auto Tech 3



Course	Credits
Y643	2

Suggested Grade Level 11-12
Prerequisites: Automotive Technology 2

This course meets every day for a single block for the whole year. The following topics are taught: HVAC, Automatic transmissions, Manual Transmissions, electrical system diagnosis, basics of on-board computer systems, computer trouble code diagnosis, instruction and use of engine diagnostic analyzer, On Board Diagnostics II (OBD II), service shop management, automotive forms and record keeping, conflict resolution and workplace safety. Students will have the opportunity to receive their PA Inspection license, PA Emissions license, and A/C Certification in class. Students are required to wear safety glasses, steel-toed leather boots, and the standard Automotive Technology uniform.

Adv Auto Tech 4



Course	Credits
Y644	2

Suggested Grade Level 12
Prerequisites: Automotive Technology 3

Advanced Automotive Technology meets every day for a single block for the whole year. Students will briefly review information from Automotive Technology 1,2, and 3 but spend most of their time studying concepts of diesel engines, hybrid vehicles and advanced diagnostics. This course will offer the opportunity to test in-house for the following industry certifications: MACS mobile air conditioning, Pennsylvania State Vehicle Inspection, and Pennsylvania Vehicle Emissions. Students must have a valid PA driver's license at time of testing to be eligible for PA Inspection and PA Emissions certifications. This course will also help prepare students who plan to take ASE certification tests. Students are required to wear safety glasses, steel-toed leather boots, and the standard Automotive Technology uniform.



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Weighted Course



Alternating Year
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Course Number Key

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S- Semester B- Before School
V- Virtual I- IB Programme

Auto Technology

CWE Auto Tech



Course	Credits
Y645	.5 - 2.0

Suggested Grade Level 12

Prerequisites: This course will not be available to students who are not enrolled as a secondary concentrator of the CTC program and have prior approval through the instructor.

The Career Work Experience (CWE) Course is only available to seniors who are enrolled in a related CTC course and have received instructor approval during the previous school year. This course allows graduating seniors to utilize the knowledge and skill that they developed through previous coursework and apply their expertise to real-world applications. CWE is designed to provide work based learning opportunities to culminate students' education and employability skills in a field related to their academic and career goals. The primary objective of this course is to promote workforce preparedness through strategic integration of classroom theory and occupational practice in an approved and supervised placement.

There are several CWE options for students to choose from including both on-site and off-site placements. Options can include: Cooperative Work Experience/Capstone (Job Placement or Internship), Teaching Assistant, and Independent Research. Each year the instructor will announce these opportunities to 11th grade students and facilitate a selection and placement process for the following school year. Students must complete this process within the designated timeframe to be considered for placement. Students will be hand-scheduled for this course by the instructor.



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Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
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V- Virtual I- IB Programme

Building Construction

Building Construction prepares students for post-secondary technical training and/or entry-level employment in residential and light commercial construction, construction management, architectural, and engineering fields. Completing this program also provides a great foundation for motivated students to pursue a 4-year college degree in Construction Management or related study. Enhancing their learning experience through student membership in the National Association of Home Builders, students participate in competitions, professional networks, conferences, industry exhibits and service learning projects.

Building Construction Courses

Building Construction Tech 1 (Y775)
Building Construction Tech 2 (Y651)
Adv Building Construction Tech 3 (Y652)
Adv Building Construction Tech 4 (Y654)
CWE Building Construction (Y655)

Building Construction

Exp Bldg Const Tech 1

Course Credits Suggested Grade Level 09-10
Y775 1 Prerequisites:

"Exploring Building Construction Technologies," is designed to introduce students to the various aspects of Construction Related Professions. Students gain knowledge and experience with building materials, tools, and equipment. Constructing a home from start to finish is the primary focus as students flow through this investigative learning process. Topics of study include construction safety, tools and heavy equipment, building layout, site preparation, and construction process. Hands on lab exercises, field trips, National Association of Homebuilders (NAHB) curriculum, and visionary thought processes are the teaching mediums. Students construct a small shed/cabin as the culminating project. Offering a well-rounded curriculum this course is also connected to a wide spectrum of engineering, architecture, and mechanical related career fields.

Bldg Const Tech 2

Course Credits Suggested Grade Level 10-11
Y651 1 Prerequisites: Building Const Tech 1

As students move into the second year of learning how a house is built from the ground up, emphasis is placed on structural framing and mechanical building systems. Topics of study include building plans and blueprints, structural foundation, masonry, and framing. Students will continue to gain skill and experience operating advanced tools and technology while completing hands-on activities and constructing class, community, and personal projects.

Adv Bldg Const Tech 3

Course Credits Suggested Grade Level 11-12
Y652 2 Prerequisites: Bldg Const Tech 2

The Advanced BCT 3 course reinforces and builds on the previous course content as we explore and learn advanced phases of home construction. Topics of study include exterior finishing, roofing, windows, insulation, electric, plumbing, and HVAC. Students spend a majority of the class performing hands on tasks, lab, and on site projects. There is a continuous emphasis on career and jobsite safety and advanced tool and technique exploration. At this level construction management, leadership roles, and professional careers are also investigated.

Adv Bldg Const Tech 4

Course Credits Suggested Grade Level 12
Y654 2 Prerequisites: Adv Bldg Const Tech 3

The Advanced BCT 4 course ties all the previous levels and content together as the final phases of home construction are investigated. Topics of study include interior finishing, drywall, doors, cabinetry, flooring, painting, trim, and home completion. Students spend a majority of the class performing hands on tasks, lab, and on site projects. There is a continuous emphasis on career and jobsite safety and advanced tool and technique exploration. At this level construction management and business models, leadership roles, and professional careers are investigated. A prerequisite for this class is the completion of Level 2.



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Weighted Course



Alternating Year
Course

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H- Hybrid Y- Year-Long
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Building Construction

CWE Bldg Constr



Course	Credits
Y655	2

Suggested Grade Level 12

Prerequisites: This course will not be available to students who are not enrolled as a secondary concentrator of the CTC program and have prior approval through the instructor.

The Career Work Experience (CWE) Course is only available to seniors who are enrolled in a related CTC course and have received instructor approval during the previous school year. This course allows graduating seniors to utilize the knowledge and skill that they developed through previous coursework and apply their expertise to real-world applications. CWE is designed to provide work based learning opportunities to culminate students' education and employability skills in a field related to their academic and career goals. The primary objective of this course is to promote workforce preparedness through strategic integration of classroom theory and occupational practice in an approved and supervised placement.

There are several CWE options for students to choose from including both on-site and off-site placements. Options can include: Cooperative Work Experience/Capstone (Job Placement or Internship), Teaching Assistant, and Independent Research. Each year the instructor will announce these opportunities to 11th grade students and facilitate a selection and placement process for the following school year. Students must complete this process within the designated timeframe to be considered for placement. Students will be hand-scheduled for this course by the instructor.



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Business Management

Accounting & Finance Courses

Accounting & Finance students learn the basic principles of the accounting cycle, which includes analyzing transactions, journalizing, preparing closing entries, generating a trial balance, and preparing financial statements. Students will also gain an understanding of stocks, bonds, and other tradable instruments, and the markets in which they are traded. Understanding keys to decision making, whether it be financial, corporate, or personal will be fundamental to the program. Participation in FBLA will further develop skills in communication and business.

Exploring Business (S601) Business Law 1 (S608) Business Law 2/Ethics (S598) Personal Finance (S607)	Adv Accounting 1 (Y603) Adv Accounting 2 (Y610) Stocks & Investments 1 (S770) Adv Stocks & Investments 2 - Little Lion Fund (Y632)
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Management & Logistics Courses

Management & Supply Chain logistics are key foundations crucial to any company's success and profitability. Students will attain fundamental skills needed to succeed in post-secondary institution in a business-related field. The scope and perspective of these courses is designed for students to transition to a Management or Supply Chain major. Procurement, outsourcing, warehousing, and transportation are just a few of the topics that will be covered. Extracurricular leadership and competitive opportunities are available through participation in DECA, Future Business Leaders of America (FBLA).

Hospitality Management (S760) Leadership in Business (Y737) Retail Management (S741) Roar Store Entrpren (S744)	Supply Chain 1 (S774) Supply Chain 2 (S778) Supply Chain 3 (S840)
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Marketing Courses

Marketing students learn that marketing products or services is the fundamental objective of any business. Marketing is the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods and services to create exchanges that satisfy individual and organizational goals. Students learn the “process” of marketing, designed to change behaviors or influence ideas. These activities include, but are not limited to advertising, marketing research, product design, supply chain, and selling. The Roar Store provides real-world learning lab for developing skills, while DECA provides competitive, leadership and networking opportunities.

Sales (S745)

Creative Advertising (S743)

Marketing Essentials (S740)

Ent & Sports Mktg 1 (S742)

Ent & Sports Mktg 2 (S739)

Social Media Marketing (S736)

Business Mgt - Accounting and Finance

Adv Accounting 1

Course	Credits	Suggested Grade Level
Y603	1	09-12

Prerequisites:

Advanced Accounting 1 is recommended for all students planning to major in Business Administration in college, and any student with an interest in exploring the business world. This course provides an opportunity for students to prepare for college accounting as well as to learn basic principles of accounting. Students apply general mathematical calculations to accounting transactions. The students are provided with experiences in planning, gathering, analyzing and interpreting financial data. Automated accounting systems and spreadsheet software are incorporated into the daily routine of this class.

Adv Accounting 2

Course	Credits	Suggested Grade Level
Y610	1	10-12

Prerequisites: Advanced Accounting 1

Advanced Accounting 2 prepares students for college level coursework in Accounting, a requirement for all Business majors. It will further develop the accounting cycle: recording, summarizing, interpreting financial data for corporations, which includes long-term liabilities, plant assets and inventory, cash flow, and financial statement analysis. This course also includes work toward the MOS Excel Specialist certification.

Business Law 1

Course	Credits	Suggested Grade Level
S608	.5	10-12

Prerequisites:

This course is designed to help students understand law both personal and business legal rights and duties. If you like debating, this class is for you. Topics of study include our legal system, court procedures, torts, contracts, employment and how our rights line up with our constitution.

Students will conduct a mock trial using correct courtroom procedure. Supplemental activities include field trips, guest speakers and videos. Any student interested in law, law enforcement, protective services, business or political science should consider this course.

Business Law 2/Ethics

Course	Credits	Suggested Grade Level
S598	.5	10-12

Prerequisites: Business Law 1

Ethics is defined as moral principles that govern a person's behavior or the conducting of an activity. Companies practice or neglect ethical behavior on a daily basis. This course introduces topics such as applying moral philosophies to Business Ethics, politics, culture as a factor within ethics, social responsibility, moral dilemmas, social and media, and ethical standards within the business community. If you like debating, this class is a must. A main consideration of the course is to encourage good decision making by the students as they consider their future careers and decisions they make.

Expl Business

Course	Credits	Suggested Grade Level
S601	.5	09-10

Prerequisites:

Students will explore areas of business including marketing, business law, economics, personal finance, accounting, supply chain management, leadership, business communications and etiquette in a laboratory setting. Students engage themselves in interactive multimedia, oral presentations, and case studies. The primary goal of the course is to help students develop an interest in business and decide what area best fits their career aspirations. This is the recommended first business class for students to take. After taking this course, students will have a better idea of which business classes they would like to take next.



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Weighted Course



Alternating Year
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Business Mgt - Accounting and Finance

Personal Finance

Course Credits Suggested Grade Level 09-12
S607 .5 Prerequisites:

In this course, students build a foundation of personal finance skills for business and personal success. Units of study include: Career Decisions, Money Management, Financial Security, Credit Management, Resource Management, Risk Management and Consumer Rights and Responsibilities. Some of the topics include: investments; budgets and financial records; insurance; taxes; checking accounts and other banking services; decision making regarding renting and buying and maintaining a vehicle. Activities may include guest speakers, videos and field trips. There will be a \$25 fee for the H/R Block Budget Challenge that is a component of the course.

Stocks & Inv 1

Course Credits Suggested Grade Level 10-12
S770 .5 Prerequisites:

Stocks and Investments 1 provides an insight into various types of financial assets, with a focus on stocks. Students first develop a basic understanding of stocks, markets, and indexes. Focus is next on decision making and stock valuation using fundamental analysis techniques, both qualitative and quantitative methods. Using an on-line trading simulation, students invest in stocks listed on the New York Stock Exchange and the NASDAQ. Students work individually and in groups to research stocks and enter trades on the simulation.

Adv Stocks & Inv 2/LL Fund

Course Credits Suggested Grade Level 10-12
Y632 1 Prerequisites: Stocks & Investments 1, Adv Accounting 1

Stocks & Investments 2 manages a live investment fund called the "Little Lion Fund." Students assume positions in the class such as Stock Analyst, Sector Manager, Economist, Accountant, and more. Students will learn advanced concepts related to fundamental and technical analysis of stocks, valuation and trading. Decision making will be emphasized using time value of money and portfolio allocation concepts. Course enrollment is limited. Students may need to apply via a selection interview with a committee.



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Alternating Year
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Business Mgt - Management & Logistics

Hospitality Mgmt

Course	Credits	Suggested Grade Level
S760	.5	9-12

Prerequisites:

Students who wish to explore marketing or culinary careers in the hospitality industry will find this course exciting and informative. The course will cover career opportunities and focus primarily on the hospitality industry. Students will study how hotels manage reservations, food services, guest services, and guest relations. Field trips to local hotels help students see these areas of management in practice. Students will be able to put the skills they develop to test by participating in DECA competitive events if they choose to join the club.

Retail Management

Course	Credits	Suggested Grade Level
S741	.5	10-11

Prerequisites: Expl Business

This course turns the school store, the Roar Store, into a learning lab. Students learn how to start their own business and prepare a business plan. The curriculum includes the study of types of business ownership and legal processes required to become an entrepreneur. Students will participate in case studies and business etiquette training. Along with these hands-on activities, students will have the opportunity to experience guest speakers, field trips, projects, and community resources.

Roar Store Entpren

Course	Credits	Suggested Grade Level
S744	.5	10-12

Prerequisites: Retail Management

Students will manage, promote, and operate the "Roar Store" student store. Students will cycle through a variety of committees while participating in the hands-on activities and projects involved in the operation of a retail store. Store committees consist of management, bookkeeping, store associate, promotion, buying, field trip, luncheon and water machine management. This project based class may be taken more than once. Students must register for each semester separately.

Leadership in Business

Course	Credits	Suggested Grade Level
Y737	1	11-12

Prerequisites: Corequisites: Roar Store Entrepreneurship

Through this course students will explore management planning, organizing, staffing, leading or directing, training and managing resources and controlling an organization along with defining his or her leadership style. Students will participate in various seminars and formal management training, guest speakers, case studies and projects while working to develop these skills. Students must submit an application, participate in an interview process, and be recommended by a CTC teacher to be accepted into the course.

Supply Chain Mgmt 1

Course	Credits	Suggested Grade Level
S774	.5	9-12

Prerequisites:

In this class students explore the many different areas of Supply Chain Management and how the field impacts the way products and people interact. In this course, students will learn why supply chain is the heart of business and how to be successful in the field. The course has many opportunities to connect with Penn State's Supply Chain program. The students will take field trips to various businesses to explore the world of supply chain.



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Business Mgt - Management & Logistics

Supply Chain Mgmt 2

Course	Credits	Suggested Grade Level
S778	.5	10-12

Prerequisites: Supply Chain Management 1

Supply Chain Management 2 is designed for those students who have successfully completed Supply Chain Management 1. In this course, we will focus primarily on the relationship supply chain has on consumer fulfillment operations. This course will be project and case-study based. A 1 day job shadow in supply chain will be required in order to complete the class. Teacher will coordinate the shadow. Students will also have the opportunity to participate in many supply chain related field trips.

Supply Chain Mgmt 3

Course	Credits	Suggested Grade Level
S840	.5	11-12

Prerequisites: Supply Chain Management 2

Supply Chain Management 3 is designed to build on topic areas of Supply Chain Management 1 and 2. In the course, the students will work with other students on a research project with various employers. The course can address the following areas: Forecasting, Procurement, Manufacturing, Distribution and Warehousing. The course culminates with a project that challenges students to analyze a real world problem by companies and present their findings and recommendations. Students will be required to complete an application and interview with a committee.



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Business Mgt - Marketing

Creative Advertising



Course	Credits	Suggested Grade Level
S743	.5	10-12

Prerequisites: Marketing Essentials

Media advertising and visual merchandising are components of promotion in marketing. Students will learn to develop, create, and design advertisements and visual displays for the retail workplace in this course. Students will be required to plan and complete a professional display within the high school setting as well as design and create various media advertisements.

Ent & Sports Mktg 1



Course	Credits	Suggested Grade Level
S742	.5	10-12

Prerequisites:

Marketing is the tool that has allowed the United States Economy to be one of the most successful in the world and Entertainment and Sports Marketing are important parts of our modern economy. In fact, entertainment is one of the largest exports from the U.S. to the rest of the world. Students will take a journey through the world of marketing and learn how the marketing functions are applied to sports and entertainment in this course. While exploring careers in entertainment and sports marketing, students will engage in hands-on activities and projects, participate in field trips and interact in sessions with guest speakers.

Ent & Sports Mktg 2



Course	Credits	Suggested Grade Level
S739	.5	10-12

Prerequisites: Entertainment and Sports Marketing 1

Entertainment and Sports Marketing 2 focuses on the creation of an entertainment and sports marketing plan. Students will also conduct market research in preparation of the marketing plan. Case studies, guest speakers, field trips and seminars will be used as well as group projects are included along with internship opportunities.

Mktg Essentials



Course	Credits	Suggested Grade Level
S740	.5	09-12

Prerequisites:

Students will be introduced to the field of marketing and marketing careers. Marketing is the process of developing, promoting and distributing products to satisfy customer needs and wants. As a class project, the students will form companies and develop a marketing plan using the five "P's" to promote a specific product. Activities may include field trips, guest speakers, and media analysis and project presentation to local business owners/managers.

Sales



Course	Credits	Suggested Grade Level
S745	.5	09-12

Prerequisites:

This course will introduce you to the world of sales and the impact it has on businesses. The course will cover a wide variety of areas such as the seven selling steps, personal sales, as well as participation in an analysis of the skills needed to succeed in the sales field. Selling involves the art of communicating effectively with people to explain how a product or service will benefit them and meet their needs. The student will participate in classroom theory, projects, field trips and sessions with guest speakers. Students will also be able to put the skills they develop to test by participating in DECA competitive events if they choose to join the club.



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Weighted Course



Alternating Year
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Course Number Key

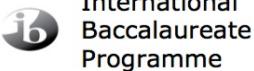
H- Hybrid Y- Year-Long
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Business Mgt - Marketing

Social Media Mktg

Course Credits Suggested Grade Level 10-12
S736 .5 Prerequisites:

Students will learn how to leverage different social media platforms in order to utilize them in the business world. Topics include integrating different social media technologies into a marketing plan, creating social media marketing campaigns, and applying appropriate social media tools. Students will also have the opportunity to manage their own social media marketing campaign through an online simulation. This course is offered in-person and virtually.



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Cisco Networking Academy

Cisco Networking Academy is an innovative program delivering information and communication technology (ICT) skills to help meet the growing demand for ICT professionals. Since 1997, Cisco Systems has developed the curriculum and provided learning experiences to schools. Students receive a high-quality education and industry-recognized certifications supported by online content and assessments, performance tracking, hands-on labs, and interactive learning tools, all developed by Cisco Systems. Visit www.cisco.com/web/learning/netacad for more information.

Cisco Courses

A+ Essentials/Technician (Y788) Adv Net Cisco 1 (Y718) Adv Net Cisco 2 (Y720)	Security +/Ethical Hacking (Y725) IT Entrepreneurship (Y822) CWE CISCO (Y726)
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CISCO Academy

A+ Essentials/Technician

Course	Credits	Suggested Grade Level
Y788	1	09-12

Prerequisites:

A+Essentials/Technician will present knowledge of basic computer hardware and operating systems, covering skills such as installation, building, upgrading, repairing, configuring, troubleshooting, optimizing, diagnosing, preventive maintenance and safety of personal computer components, systems, laptops and portable devices, with additional elements of security and soft skills.

Adv Net Cisco 1

Course	Credits	Suggested Grade Level
Y718	1	09-12

Prerequisites: A+ Essentials/Technician or Demonstrated Knowledge

Advanced Cisco Networking 1 is the first course of the Cisco Certified Networking Associate (CCNA) curriculum. Advanced Networking Cisco 1 introduces students to the Cisco Networking Academy Program and to the networking field. The course focuses on network protocols, LANs, WANs, OSI models, IP addressing, router configuration, managing Cisco IOS Software, configure routing protocols, and create access lists. Completion of Advanced Networking Cisco 1 and 2 prepares the student to take either the CCENT (Cisco Certified Entry Networking Technician) or the CCNA (Cisco Certified Network Associate) Routing & Switching exam.

Adv Net Cisco 2

Course	Credits	Suggested Grade Level
Y720	1	10-12

Prerequisites: Adv Net Cisco 1

Advanced Cisco Networking 2 is an advanced course in computer networking that is an extension of the CCENT (Cisco Certified Entry Networking Technician) and the CCNA (Cisco Certified Network Associate) Routing & Switching curriculum. The course focuses on advanced IP addressing techniques, configuration of switches, ethernet switching, port address translation (PAT), VLAN trunking protocol (VTP), and network management. Students will be able to take the CCENT (Cisco Certified Entry Networking Technician) or the CCNA (Cisco Certified Network Associate) Routing & Switching exam after completing this course based on teacher recommendation.

IT Entrepreneurship

Course	Credits	Suggested Grade Level
Y822	1	09-12

Prerequisites:

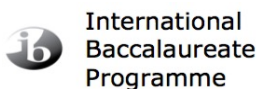
IT Entrepreneurship offers an opportunity to experience working at an IT help desk, learning business management, marketing, and business start-up. Students will learn to manage, lead, and operate an IT repair business while building a resume through real-life experience. This is State High's own "Geek Squad." Multiple sections of this course may be taken concurrently, and the course can be repeated each school year.

Security +/Ethical Hacking

Course	Credits	Suggested Grade Level
Y725	1	10-12

Prerequisites: A+ Technician/Essentials

Security+ /Ethical Hacking validates knowledge of systems security, network infrastructure, access control, assessments and audits, cryptography and organizational security. This course will provide you with the ability to measure threats to information assets and determine where a network is most vulnerable. Ethical hacking or ethical penetration testing methodology will be used in this course.



CTC Course



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Keystone



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Weighted Course



Alternating Year Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

CWE Cisco



Course	Credits
Y726	.5 to 2

Suggested Grade Level 12

Prerequisites: This course will not be available to students who are not enrolled as a secondary concentrator of the CTC program and have prior approval through the instructor.

The Career Work Experience (CWE) Course is only available to seniors who are enrolled in a related CTC course and have received instructor approval during the previous school year. This course allows graduating seniors to utilize the knowledge and skill that they developed through previous coursework and apply their expertise to real-world applications. CWE is designed to provide work based learning opportunities to culminate students' education and employability skills in a field related to their academic and career goals. The primary objective of this course is to promote workforce preparedness through strategic integration of classroom theory and occupational practice in an approved and supervised placement.

There are several CWE options for students to choose from including both on-site and off-site placements. Options can include: Cooperative Work Experience/Capstone (Job Placement or Internship), Teaching Assistant, and Independent Research. Each year the instructor will announce these opportunities to 11th grade students and facilitate a selection and placement process for the following school year. Students must complete this process within the designated timeframe to be considered for placement. Students will be hand-scheduled for this course by the instructor.



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CTC Course



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Keystone



Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
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Computer Programming

Computer science develops students' computational and critical thinking skills and shows them how to create, not simply use, new technologies. This fundamental knowledge is needed to prepare students for the 21st century, regardless of their ultimate field of study or occupation. Students who participate in computer programming can earn college credit, industry certifications as well as prepare students for post secondary education.

Computer Programming Courses

AP Computer Science Principles (Y825)
Adv Programming Essentials in C++ (Y827)
Adv Programming Essentials in C++ 2 (Y833)
Adv SQL (Y836)

Computer Programming

Adv Program Ess in C++

Course	Credits	Suggested Grade Level
Y827	1	09-12

Prerequisites:

C++ teaches the basics of programming in the C++ programming language, as well as the fundamental concepts and techniques used in object-oriented programming. The course begins with the universal basics, without relying on object concepts, and gradually extending to advanced concepts that are encountered using the objective approach. Students who successfully complete the course are encouraged to take the C++ Certified Associate Programmer certification.

Adv Program Ess in C++2

Course	Credits	Suggested Grade Level
Y833	1	10-12

Prerequisites: Adv Program Ess in C++

Advanced programming with C++ 2 will familiarize the student with the C++ template mechanism, reading and understanding definitions of template functions and classes, using property template classes and methods including third party templates, creating template functions and classes, the C++ STL library including the I/O part, and solving common programming problems with predefined STL classes and methods. Advanced programming with C++ 2 align the course to the C++ Institute CPP – C++ Certified Professional Programmer certification.

Adv SQL

Course	Credits	Suggested Grade Level
Y836	1	11-12

Prerequisites: AP Comp Sci Principles or Adv Prog ESS in C++

This course engages students to analyze complex business scenarios and create a data model—a conceptual representation of an organization’s information. Participants implement their database design by creating databases using SQL. Basic SQL syntax and the rules for constructing valid SQL statements are reviewed. This course culminates with a project that challenges students to design, implement, and demonstrate a database solution for a business or organization.

AP Comp Sci Principles

Course	Credits	Suggested Grade Level
Y825	1	09-12

Prerequisites: Algebra 1

This course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. Computer Science Principles will give students the opportunity to use technology to address real-world problems and build relevant solutions. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science. Students are encouraged to use this course as preparation for the AP Computer Sciences Principles Exam.



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Weighted Course



Alternating Year
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H- Hybrid Y- Year-Long
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Culinary Arts

Culinary Arts students will be prepared for entry-level positions in the hospitality and/or food service industry, as well as entrance into post-secondary schools of culinary arts and restaurant management. Students gain basic and advanced culinary knowledge and skills in the areas of food and equipment safety, legal guidelines of sanitation, recipe analysis and quantity food preparation.

The 2-year program will prepare students for entry into the workforce as an entry-level cook or in the food preparation industry. The 4-year program will better help a student prepare for post-secondary education in the culinary arts.

Culinary Arts Courses

Culinary Arts 1 (Y680)
Culinary Arts 2 (Y681)
Culinary Arts 3 (Y682)
Culinary Arts 4 (Y686)
CWE Culinary Arts (Y683)

Culinary Arts

Culinary Arts 1

Course Credits Suggested Grade Level 09
Y680 1 Prerequisites:

In this one credit course, students will begin exploring the culinary field. This course provides an introduction to careers opportunities in the foodservice industry with field trips, guest speakers, and research. Students are introduced to safety in the commercial kitchen, sanitation, the use and care of hand tools, knives, and small equipment, culinary math and recipe quantification, hands-on food preparation, special events, basic nutrition, and menu planning. Lesson modules include stocks, soups, and sauces, fruits and vegetables, introduction to baking and pastry, pasta and grains, and regional American cuisine.

Culinary Arts 2

Course Credits Suggested Grade Level 10-11
Y681 1 Prerequisites: Culinary Arts 1

In this one credit course, students will continue exploring the culinary field, career opportunities, a variety of ingredients, cuisines, and cooking methods. Lesson modules include sandwiches and salads, breakfast cookery, quick breads, cookies and bars, frozen desserts, appetizers and dips, grilling, and an introduction to International cuisines.

Culinary Arts 3

Course Credits Suggested Grade Level 11-12
Y682 2 Prerequisites: Culinary Arts 2 or Teacher Approval

This is a full-year, two-credit course designed for students pursuing a career in the culinary, hospitality, or foodservice industry. Course curriculum is based on the National Restaurant Association's ProStart® program; ProStart® unites the foodservice industry and the classroom to teach high school students culinary skills and restaurant management principles, as well as employability skills such as communication, teamwork, professionalism and time management. Students are required to wear uniforms and safety footwear. An additional uniform / program fee may apply (financial support is available).

Culinary Arts 4

Course Credits Suggested Grade Level 12
Y686 2 Prerequisites: Culinary Arts 3

In this full-year, two-credit course students have the opportunity to earn their ServSafe Food Safety and Sanitation Manager certification and the ProStart® National Certificate of Achievement which provides opportunities for scholarships and post-secondary education credits through dozens of national articulation agreements. Students also take the NOCTI exam (written and practical) and can earn their Certified Fundamentals Cook credential through the American Culinary Federation. Coursework includes protein fabrication and cooking, intermediate baking and pastry including laminated doughs and frozen desserts, catering operations, garde manger, front of house operations, nutrition, menu development, costing, forecasting, inventory control. Students are required to wear uniforms and safety footwear. Additional testing and certification fees may apply (financial support is available).



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Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

Culinary Arts

CWE Culinary Arts



Course	Credits
Y683	2

Suggested Grade Level 12

Prerequisites: This course will not be available to students who are not enrolled as a secondary concentrator of the CTC program and have prior approval through the instructor.

The Career Work Experience (CWE) Course is only available to seniors who are enrolled in a related CTC course and have received instructor approval during the previous school year. This course allows graduating seniors to utilize the knowledge and skill that they developed through previous coursework and apply their expertise to real-world applications. CWE is designed to provide work based learning opportunities to culminate students' education and employability skills in a field related to their academic and career goals. The primary objective of this course is to promote workforce preparedness through strategic integration of classroom theory and occupational practice in an approved and supervised placement.

There are several CWE options for students to choose from including both on-site and off-site placements. Options can include: Cooperative Work Experience/Capstone (Job Placement or Internship), Teaching Assistant, and Independent Research. Each year the instructor will announce these opportunities to 11th grade students and facilitate a selection and placement process for the following school year. Students must complete this process within the designated timeframe to be considered for placement. Students will be hand-scheduled for this course by the instructor.



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CTC Course



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Keystone



Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
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Diversified Occupations

Diversified Occupations prepares students for entry into the workforce at all levels and is designed for all students, regardless of post-secondary plans. Instruction is provided in such areas as employer-employee relations, applications and resumes, interview techniques and transitional work and life skills. The program is designed to increase skills through individual and class study, and on-the-job training opportunities, encouraging attitudes and habits, which meet employment standards. Students have the opportunity to work at a local training agency under the supervision of the high school cooperative education coordinators. In order to receive additional elective credits the students must work a minimum of 17 hours per week.

Diversified Occupations is recommended for any 12th grade student.

Diversified Occupations Course and Cooperative Work Experience Option

Diversified Occupations (Y694)
CWE Diversified Occupations (Y692)

Diversified Occupations

Diversified Occupations

Course	Credits	Suggested Grade Level
Y694	1	12

Prerequisites: Interview with DO teacher prior to enrollment

Diversified Occupations is a full year, one-credit course. The course prepares students for entry into the workforce at all levels and is designed for all students, regardless of post-secondary plans. Instruction is provided in such skills as employer-employee relations, applications and resumes, interview techniques, traditional work, and life skills. The course is designed to increase skills through individual and class study and on-the-job training opportunities, encouraging attitudes and habits to meet employment standards. Course delivery includes class discussion, guest speakers, computer applications and audio-video materials. Students are evaluated on class assignments and individual projects. Students who are interested in earning two additional credits for working must concurrently register for Cooperative Work Experience.

CWE Divers Occ

Course	Credits	Suggested Grade Level
Y692	2	12

Prerequisites: This course is open to seniors who are admitted to the Diversified Occupations Program following a personal interview. Students must be concurrently enrolled in Diversified Occupations/Capstone.

Cooperative Work Experience is a full year two-credit course. This course provides the opportunity for the student to develop job skills in a supervised on-the-job training experience. The student will work a minimum of 17 hours per week in a field of their choice.



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Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
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V- Virtual I- IB Programme

Early Childhood Education

Early Childhood Education students will learn to work with children in preparation for many careers. From early childhood teaching to early intervention, the public sector to private enterprises, students explore a variety of possibilities in a career objective that includes children. This is an interactive program in which students participate in a supervised preschool experience called “The Little Lions’ Playroom.” The content of each course includes basic child development; furnishing a safe, healthy, learning environment for children; nurturing children; and learning about career options in early childhood education. Seniors can experience the daily routine in an elementary school classroom setting through “Exploration in Education” or explore early childhood centers or agencies through a cooperative work experience. High school students who enroll in this course will be working with young children. Thus, they are required to have a current health record, proof of recent TB screening and adequate immune status. These requirements must be met by the student at the beginning of the coursework. All paperwork must be submitted to the teacher or CTC office. Students enrolled in the ECE program will earn industry certifications in fire safety training, mandated reporter training, and AED/CPR.

Early Childhood Education Courses

Early Childhood Education 1 (Y663)
Early Childhood Education 2 (Y665)
CWE Child Care (Y671)

Early Childhood Education

Early Child Ed 1

Course	Credits	Suggested Grade Level
Y663	2	10-11

Prerequisites: Understanding Young Children

Early Childhood Education 1 is the first level of the Early Childhood Education Program of Study. It is the basis for working with children as an Early Childhood professional. This course lays the foundation of development for infants, toddlers and preschool age children. Learning about development through real experiences is interesting and fun. Students participate in the Little Lions' Playroom Preschool and learn to enhance the play experiences of our children. Games, outdoor play and field trips are explored as well as dramatic play, foods, nutrition and cooking activities. Many early childhood programs in the area will be visited for observation. All students enrolled in Early Childhood Education program must have an updated physical and TB test before the start of school. Documentation needs to be submitted to the CTC Office of the high school. Students enrolled in the ECE program will earn industry certifications in fire safety training and mandated reporter training.

Early Child Ed 2

Course	Credits	Suggested Grade Level
Y665	2	11-12

Prerequisites: Early Childhood Education 1

Early Childhood Education 2 focuses on early learning. Students explore the many learning centers in an early childhood center. Students participate in the Little Lions' Playroom program and learn to enhance the expression of creativity in young children. Many expressive areas are highlighted including art, music, rhythm, movement, puppetry and dramatic play. Children's books, storytelling, songs and finger play are other areas that are emphasized. Many early childhood programs in the area will be visited for observation. This course assists students in career planning. A portfolio is assembled which highlights the student's personal qualities and guides him/her in future professional endeavors. All students enrolled in Early Childhood Education program must have an updated physical and TB test before the start of school. Documentation needs to be submitted to the CTC Office of the high school. Students enrolled in the ECE program will earn industry certifications in fire safety training, mandated reporter training, and AED/CPR.

CWE Child Care

Course	Credits	Suggested Grade Level
Y671	.5 to 2	12

Prerequisites: This course will not be available to students who are not enrolled as a secondary concentrator of the CTC program and have prior approval through the instructor.

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There are several CWE options for students to choose from including both on-site and off-site placements. Options can include: Cooperative Work Experience/Capstone (Job Placement or Internship), Teaching Assistant, and Independent Research. Each year the instructor will announce these opportunities to 11th grade students and facilitate a selection and placement process for the following school year. Students must complete this process within the designated timeframe to be considered for placement. Students will be hand-scheduled for this course by the instructor.



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Programme



CTC Course



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Keystone



Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
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Engineering

Engineering study provides preparation for 4-year bachelor's programs and careers in mechanical, electrical, and industrial engineering, as well as 2-year associate's degree programs in engineering technology and careers in electrical, mechanical, and industrial engineering. Students learn to use common engineering tools and work in teams to solve problems. Competitive extracurricular opportunities are available through participation in the Technology Student Association (TSA)

Engineering Courses

Exploring Engineering (S710)
Electronic Systems Engineering (Y719)
Robotics Engineering (Y783)
Digital & Analog Elec Engineer (Y784)
Adv Engineering Tech/Adv. Physics 1 (Y479)

Engineering

Adv Engr Tech



Course	Credits
Y716	1

Suggested Grade Level 11-12

Prerequisites: Successful completion of two science courses (i.e. Earth Systems Science 1 or Advanced Earth Systems Science 1; Biology 1 or Advanced Biology 1; Chemistry 1 or Advanced Chemistry 1; Environmental Science 1) Completion of CP Algebra 2. Concurrent enrollment in Precalculus or AP Calculus.

Advanced Engineering gives qualified juniors and seniors the opportunity to learn about and experience engineering topics through direct instruction, class work, activities, tests, labs and projects. Students will also experience engineering through guest speakers, field trips and face-to-face interactions with practicing engineers. STEM (Science, Technology, Engineering and Math) concepts are emphasized throughout. Students will learn about parametric modeling, advanced manufacturing of prototype parts, creating and testing models and full size prototypes and participate in design reviews. This course is nested with Advanced Physics 1; therefore physics concepts are illuminated through engineering projects throughout the year. Select Y479 in course requests.

Digital & Analog Elec Engineer



Course	Credits
Y784	1

Suggested Grade Level 11-12

Prerequisites: CP Algebra 1 or higher

Not offered this year

Digital and Analog Electronics Engineering is an introductory course into the high tech world of electronics, with a special emphasis on solid state devices such as diodes, transistors and analog and digital integrated circuits and microprocessors. Science, Technology, Engineering and Mathematics (STEM) concepts are emphasized in this class. Instructional methods will include direct individual and group instruction, demonstrations, labs, videos, worksheets and projects. Assessment will be through written tests, lab reports, worksheets and project evaluations.

Electronic Systems Engineering



Course	Credits
Y719	1

Suggested Grade Level 11-12

Prerequisites: CP Algebra 1 or higher

Electronics Systems Engineering is an introductory course into the high tech world of electronics, with a special emphasis on components of a circuit, measurements, how electronic systems work, and design. Science, Technology, Engineering and Mathematics (STEM) concepts are emphasized in this class. Instructional methods will include direct individual and group instruction, demonstrations, labs, videos, worksheets and projects. Assessment will be through written tests, lab reports, worksheets and project evaluations.

Expl Engineering



Course	Credits
S710	.5

Suggested Grade Level 09-10

Prerequisites: CP Algebra 1 or higher

This course introduces the student to the many different career opportunities in the field of engineering. Units covered include measurements, individual and group problem solving, 3D modeling and printing and product dissection. Field trips and guest speakers will allow the students to experience direct connections to the workplace. Science, Technology, Engineering and Mathematics (STEM) concepts are emphasized in class. Evaluation will be based on quizzes, tests, labs, projects and a two page final report (in place of a final exam) on a career of interest to the student.

Robotics Engineering



Course	Credits
Y783	1

Suggested Grade Level 11-12

Prerequisites: CP Geometry or higher

The Robotics Engineering course is a full year class for students who want to learn what robots do and how to use them. Students will learn the theory and practice of different robotic devices such as CNC machines, 3D printers, laser engravers, and autonomous robots using C language based programs. An integrated approach to Science, Technology, Engineering and Robotics (STEM) is emphasized in class. A three prong approach is used to teach robotics via programming, mechanics and electronics. Evaluation is through written tests, projects, labs and design challenges.



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CTC Course



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Keystone



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Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

Health Professions Sports Therapy & Exercise Science

Health Professions recommends one of two pathways for students to explore health care and wellness careers. Students can choose from a nursing/medical pathway or a sports therapy/exercise science pathway. Several courses are offered in both pathways initially and both provide a strong background in the sciences as well as prepare students for post-secondary education. Nursing/Medical culminates in a nurse aide training course/certification and prepares students for careers in medicine, nursing, physician assistant, etc. Sports Therapy/Exercise Science steers students towards professions such as physical therapy, athletic/personal training, physician assistant, nutrition, medicine and culminates with preparation for students to sit for the ACSM Certified Personal Trainer exam.

Health Professions Courses

Health Systems and Professions (Y769)
Language of Medicine (S772)
Intro Sports Medicine (Y764)*
Health Care Evidence and Research (S709)
Anatomy & Physiology (Y753)
Clinical Observations (S768)*
Nurse Aide Training (Y765)*
Advanced Personal Training/Fitness & Exercise Science/Sports Nutrition (Y837)*
Health Profession Research Fellows (Y824)
CWE Health Professions (Y727)
CWE Sports Therapy (Y762)
Courses denoted with * offer real clinical experiences.

Health Professions

Anatomy & Physiology



Course	Credits	Suggested Grade Level
Y753	1	11-12

Prerequisites: Advanced Biology 1, Biology 1

This course will involve students in an in depth study of the structure and function of the human body. Special attention will be given to the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, immune, respiratory, digestive, lymphatic, urinary and reproductive systems. It will provide a firm foundation for further study at the post-secondary level. Students are encouraged to take Anatomy & Physiology with the other Health Professions courses.

It is recommended that students have two years of high school mathematics before scheduling this course.

Clinical Observ



Course	Credits	Suggested Grade Level
S768	1	11-12

Prerequisites: Language of Medicine
Strongly recommended-concurrent enrollment in Anatomy & Physiology

Clinical Observations is for students who are serious about pursuing a career in healthcare (medicine, nursing, dentistry) who would like the opportunity to shadow different healthcare providers in hospital and community settings. This class is limited to 12 students per section and requires students to provide their own transportation to school and clinical sites. Mount Nittany Medical Center is the main site for the clinical observations. This experience is under the supervision and coordination of a Health Professions instructor. Students must apply to be accepted into the course and participate in a selection interview with a committee as well as meet physical health requirements. *Eleventh graders receive top priority. Twelfth graders are encouraged to apply and are admitted as space permits.

HP Research Fellows



Course	Credits	Suggested Grade Level
Y824	2	11-12

Prerequisites: Successful completion of 1 other Health Professions Course

Students spend 10 hours per week during both fall and spring semesters conducting research in the lab of a professor in the College of Health and Human Development at Penn State.

Nurse Aide Training



Course	Credits	Suggested Grade Level
Y765	2	11-12

Prerequisites: Language of Medicine is required, Must be 16 years old, Anatomy and Physiology is strongly recommended

The 226.5 hour-nurse aide training course is approved by the Pennsylvania Department of Education and prepares students for RN, CRNP, PA & MD training and for employment in hospital and long term care settings. Upon successful completion of the course students are eligible to take the state certification exam. Students are required to complete all classroom, lab and clinical time in order for successful completion. This course is not recommended for students with attendance or scheduling conflicts. Space is limited to 18 students and only students who are at least 16 and have successfully completed Language of Medicine with a C or higher may apply. Students will be required to complete an application and submit to an interview by a committee. *Twelfth graders receive top priority, eleventh graders are encouraged to apply and are admitted as space permits.

This course runs from 8:00 AM through the first block daily and requires students to provide their own transportation to clinical sites, meet physical health requirements and obtain background clearances.



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Weighted Course



Alternating Year
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Health Professions

Adv Pers Train/ExSci/SptsNutri



Course	Credits
Y837	2

Suggested Grade Level 12
Prerequisites: / Corequisite: Introduction to Sports Medicine & Anatomy & Physiology

Designed primarily to prepare students to become professional CPT's-Certified Personal Trainers, this course utilizes the ACSM - American College of Sports Medicine material as the foundation. In these unique lecture and lab based nested courses, instructors collaborate to best enable students to learn about fitness, wellness, sports nutrition and exercise in preparation to serve clients or themselves across the age span and with a range of health conditions. To sit for the ACSM CPT exam, one must be 18 years of age, a high school graduate and CPR certified with AED training. Our goal is to best prepare students to take this exam independently to obtain their professional certification. Students are required to obtain fifteen internship hours provided through course partnerships. CPR and HIPAA certification is typically offered.

By registering for course Y837 students will be auto enrolled in three courses; Adv Sports Med:Personal Training (Y838), Adv Fitness and Exercise Science course (S556) counts as the junior or senior PE requirement and the Adv Sport Nutrition and Safety (S557) course counts as a junior/senior Health credit.

CWE Health Pro



Course	Credits
Y727	.5 to 2

Suggested Grade Level 10-12
Prerequisites: This course will not be available to students who are not enrolled as a secondary concentrator of the CTC program and have prior approval through the instructor.

The Career Work Experience (CWE) Course is only available to students who are enrolled in a related CTC course and have received instructor approval during the previous school year. This course allows students to utilize the knowledge and skill that they developed through previous coursework and apply their expertise to real-world applications. CWE is designed to provide work based learning opportunities to culminate students' education and employability skills in a field related to their academic and career goals. The primary objective of this course is to promote workforce preparedness through strategic integration of classroom theory and occupational practice in an approved and supervised placement.

There are several CWE options for students to choose from including both on-site and off-site placements. Options can include: Cooperative Work Experience/Capstone (Job Placement or Internship), Teaching Assistant, and Independent Research. Each year the instructor will announce these opportunities to eligible students and facilitate a selection and placement process for the following school year. Students must complete this process within the designated timeframe to be considered for placement. Students will be hand-scheduled for this course by the instructor.

CWE Sports Therapy



Course	Credits
Y762	.5 to 2

Suggested Grade Level 10-12
Prerequisites: This course will not be available to students who are not enrolled as a secondary concentrator of the CTC program and have prior approval through the instructor

The Career Work Experience (CWE) Course is only available to students who are enrolled in a related CTC course and have received instructor approval during the previous school year. This course allows students to utilize the knowledge and skill that they developed through previous coursework and apply their expertise to real-world applications. CWE is designed to provide work based learning opportunities to culminate students' education and employability skills in a field related to their academic and career goals. The primary objective of this course is to promote workforce preparedness through strategic integration of classroom theory and occupational practice in an approved and supervised placement.

There are several CWE options for students to choose from including both on-site and off-site placements. Options can include: Cooperative Work Experience/Capstone (Job Placement or Internship), Teaching Assistant, and Independent Research. Each year the instructor will announce these opportunities to eligible students and facilitate a selection and placement process for the following school year. Students must complete this process within the designated timeframe to be considered for placement. Students will be hand-scheduled for this course by the instructor.



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Special Programs

English for English Language Learners (English as a Second Language)

Following the guidelines from the Pennsylvania Department of Education, the State College Area School District provides an appropriate program of English as a Second Language (ESL) to all students who are limited in their English proficiency. This program is designed to address the learning needs of the student as determined through an evaluative process. The program is highly individualized; however, each qualifying student will be enrolled in at least one ESL class, depending on the results of English language placement tests, a personal interview, the student's experiential background and length of time in the US.

English for English Language Learners [Entering (1A, B), Beginning (2A, B), Developing (3A, B), Expanding (4A, B), and Bridging (5A, B), and Support.]

These courses are designed for students whose native language is **not English** and at the same time satisfies the English requirement for graduation. The emphasis in the courses is on providing students with increased confidence, greater understanding, and personal growth through improved language skills. A course can be taken for two consecutive years, allowing more flexibility for students to complete one level without appearing on the transcript that the student is repeating the course, thus the designations A and B. At the entering and beginning levels, students work to develop basic aural/oral communicative skills. Student activities emphasize listening, speaking, spelling, vocabulary development, reading, writing, and grammar.

At developing and expanding levels students continue to work on the skills laid out in the entering and beginning levels. In addition, they read English literature, write essays, learn idiomatic English, as well as prepare oral and written reports. Bridging students build on the skills referred to in the beginning, developing and expanding courses and read and discuss American/British literature, write more extensively, develop public speaking skills, and prepare for the Test of English as a Foreign Language (TOEFL) examination.

Transition is a course with no credit or grade. Students come to the ESL room by appointment for assistance, guidance and support in their core subjects. The ESL teacher tracks the Transition student's academic progress in all core subjects and keeps a record of such for PA compliance checks.

US Culture/History for English Language Learners [Entering (1A, B), Beginning (2A, B), Developing (3A, B), Expanding (4A, B), Bridging (5A, B), and Support]

This course is designed for students whose native language is **not English** and at the same time satisfies the social studies requirement for graduation. Students work to develop mastery of the language as they gain a greater understanding of American history and culture. The content of this course stresses various aspects of American life, including activities focusing on holidays, historical events and current issues. The academic emphasis of this course is on reading and writing skills. Computer literacy and research skills are also stressed. This course provides a second opportunity of ESL instruction for student who enroll in entering, beginning, developing, expanding, or bridge class as well as ESL students who are new to the country. A course can be taken for two consecutive years, allowing more flexibility for students to complete one level without appearing on the transcript that the student is repeating the course, thus the designation A and B.

Transition students enroll concurrently in a grade-level social studies course and access the services of ESL teacher for help with study skills, vocabulary development, written assignments and long-term projects.

Services for Home Schooled Students and Students in Private Schools

Any resident school age student that will be in grades 09-12 during the school year may enroll in courses and/or co- curricular activities at the State College Area School District.

HOMESCHOOL students must have filed an affidavit, course plan and be registered with the Registration Office. They must complete a request to participate form in curricular and co-curricular activities by February 25.

Students in homeschooling may borrow course materials from the school provided they have filed an affidavit, and course plan. Materials request need to be turned in by August 4.

PRIVATE school students may take courses provided the course is NOT available at the private school. The private school principal must make arrangements for the student and provide a letter to the registration office.

Contact the Registration Office at 814-231-1017 or email registration@scasd.org with additional questions.

Learning Enrichment/Gifted Support Program

The General Education program provides for many levels of student ability including college preparatory, advanced, Advanced Placement (AP), and International Baccalaureate (IB) courses. The State College Area School District recognizes that highly able learners may have differing educational needs beyond what is offered in the General Education program. State High's program for highly able learners is called the Learning Enrichment/Gifted Support Program (LE/GS). The Learning Enrichment arm of the LE/GS program can meet the needs of highly able learners in a variety of ways.

Learning Enrichment/ARTsmART

Learning Enrichment is an individualized program for students who have evidenced a high degree of ability, and whose educational plans can be enhanced by learning activities in the school and/or community. Students typically spend their day in the high school taking required and elective courses for graduation. An individual learning contract outlines learning objectives and enrichment goals which are required for program participation.

The Learning Enrichment Program is flexible enough to meet the needs of students who have different interests, skills, and educational goals as well as students who are identified as mentally gifted. An LE/GS teacher will work with learning enrichment and gifted students to ensure proper course levels and placements that provide the needed level of rigor while maintaining a balance across courses.

ARTsmART is an extension of the enrichment program for academically motivated students with interests or gifts in music, visual and performing arts.

Learning Enrichment/ARTsmART options

With advanced approval, students may participate in the LE program through their pursuit of credit by means outside of the General Education program. Alternative credit options are limited to:

- Independent Study
- Correspondence or Online Course (register through SCAHS virtual learning)
- Course by Appointment (register goes through the counseling office)
- Portfolio Evaluation
- Advanced Option
- Formalized Study Abroad Programs (study abroad applications can be completed with LE or counseling)

Options for non-credit enrichment experiences include but are not limited to:

- LE/AS IN
- LE/AS OUT
- Lab Experience
- LE/AS Class
- Penn State Class
- Mentorship/Internship
- Music Practice (in or out of school)
- Private Lesson
- Coaching
- Community Service

Students interested in scheduling enrichment experiences are encouraged to meet with a program specialist for applications and contracts well in advance of the onset of each semester.

Learning Enrichment/ARTsmART IN

Acceptance to the LE/AS IN program is dependent upon grade level acceleration (measured by advanced level or higher) in several core classes (LE) or arts classes (AS) and exemplary performance in all classes. LE/AS IN includes but is not dependant upon gifted identification. Consideration for LE/AS IN at the high school requires an application, including submission of a Learning Enrichment Profile. Continued participation is dependent upon maintaining an active student contract, goal setting and reflection during each semester of involvement, updating the individual Learning Enrichment Profile, and maintaining rigor and exemplary performance across courses.

LE/AS IN students are typically scheduled in the Learning Enrichment or ARTsmART rooms during study hall time to meet their learning goals and work on enrichment activities or ARTsmART plans.

Students who are interested in participating in the LE/AS IN program through scheduled time in the LE or AS classroom should contact a LE/GS teacher for an application.

Learning Enrichment/ARTsmART OUT

In response to varied student interests and needs, the LE/AS program offers an opportunity to leave the high school campus to pursue experiences not available within this setting. Parental involvement and responsibility are especially vital to LE/AS options that involve leaving campus. Students must demonstrate superior performance in all classes to qualify and maintain eligibility for LE or

ARTsmART OUT. Mentors/coaches/outside resource people must provide copies of child abuse clearances to LE/AS teachers to be kept on file.

Advanced Option

Any elective course for which an Advanced or AP level is not available within the scope and sequence of the subject area may be eligible for an Advanced Option contract. This contract will be created in collaboration with the teacher of record and an LE/AS teacher. Advanced Option contracts require substantial depth and complexity beyond the requirements for the regular level course. Successful completion will result in advanced credit and a weighted grade. Note: Advanced option credit is not available for non-elective classes required for graduation. (ex) PE, Health, English, Social Studies. Advanced option credit is additionally not available for World Language courses prior to Level 4. Advanced Option contract must be in place before start of course.

Gifted Support

Students who have needs that cannot be met within General Education and Learning Enrichment services can be referred for evaluation for Gifted Support services. The Gifted Support component may provide acceleration and/or enrichment for students who have unusual abilities and are identified as mentally gifted. A multidisciplinary team determines the appropriateness of placement in Gifted Support based on information secured from group achievement and ability tests, grades, an individual psychological examination, parent and teacher observations, and teacher, program specialist, and administrator recommendations. If Gifted Support services are recommended by a multidisciplinary team, the parent(s) and the student will be invited to attend and participate in a program planning meeting where a Gifted Individualized Education Plan (GIEP) will be developed.

Special Education Programs

In compliance with PA Chapter 14 Special Education Programs & Services and Individual with Disabilities Education Act (IDEA), the State College Area School District provides to all students with a disability and in need of Specially Designed Instruction a free and appropriate public education.

The special education process is designed to address the learning needs of the student identified through a multidisciplinary evaluation. Once a student is identified to be in need of special education, school personnel, parents and the student work together to develop an individualized appropriate program of education. This specially designed instructional plan for the student with a disability is referred to as an **Individualized Education Program** (IEP). Several support services are available including, but not limited to, Autistic, Emotional, Life Skills, Multiple Disabilities Support, Hearing, Vision, Speech and Language, Occupational and Physical Therapy and Learning Support.

Each student's IEP team determines the level and type of support the student will receive, and the student's schedule will reflect those decisions.

For additional information, contact the SCASD Special Education office at (814) 231-1072 or (814) 231-4172.

Delta Program

THE DELTA PROGRAM

The Delta Program is a small learning environment in the State College Area School District that focuses on students taking ownership of their education. Delta is a democratic school of choice for students in grades 6 – 12. The Delta Program provides a flexible educational program for students that may include courses at Delta, the traditional high school, Penn State, and independent contracts. Each student and his/her parents or guardians are members of an advising team that meets at least three times a year with the student's advising teacher. This team helps the student set learning goals, choose appropriate learning experiences, and deals with any concerns the student, parent, or staff may have.

The Delta Program's academic curriculum serves a wide variety of students and focuses on specific content areas. Students are also welcome to enroll in any high school course that fits their needs and interests and to participate in any high school athletic team or extracurricular activity. On average, 70% of Delta students take at least one course at State High during the school year. The State College Area High School and The Delta Program both provide students with a strong academic foundation for post-secondary education.

One of the missions of The Delta Program is to instill a sense of community among the students, whether it be in our school, the local community, or globally. Every student enrolled at Delta is expected to contribute a minimum of 30 hours of community or program service per year. Last year, Delta students recorded over 6100 service hours.

Students who want to attend The Delta Program must complete and submit an application. To learn more about Delta, call the Delta office and make an appointment to talk with Delta's director. Application forms are available online and at The Delta Program Office.

International Baccalaureate Programmes

International Baccalaureate Programmes

IB Mission Statement

The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end, the organization works with schools, governments, and international organizations to develop challenging programmes of international education and rigorous assessment.

These programmes encourage students across the world to become active, compassionate, and lifelong learners who understand that other people, with their differences, can also be right.

Diploma Programme (DP) and Career-related Programme (CP)

The IB DP and CP are two-year programmes for students in their junior and senior years of high school. Each programme aims to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world.

Informed by these values, an IB education:

- centers on learners
- develops effective approaches to teaching and learning
- works within global contexts
- explores significant content.

In addition, an IB education empowers young people for a lifetime of learning, independently and in collaboration with others. It prepares a community of learners to engage with global challenges through inquiry, action, and reflection.

For more information, contact: Jennifer Schreiber, Diploma and career-related Programme Coordinator (814) 272-8593

IB Course Guide Descriptions

*Students who register for courses with the IB will participate in IB external assessments in addition to the regular class assignments. IB assessments have an associated fee, which is the responsibility of the student. Financial assistance is available. Students must be in 11th or 12th grade to register for an IB course. Students in the IB Programmes are expected to uphold the highest standard of academic integrity as set forth in the SCAHS IB Academic Integrity Policy.

**HL (Higher Level) 2-year course/SL (Standard Level) 1 or 2-year course

***All IB courses are weighted.

Rationale: Students who are diploma candidates in the Diploma Programme are required to complete six courses (one from each curricular group). Course candidates in the Diploma Programme may take courses a la carte. Students in the Career-related Programme are required to complete two courses from the Diploma Programme offerings.

Diploma Programme Requirements

Diploma Programme Core	Diploma Programme Courses
Theory of Knowledge course; Creativity-Activity-Service; Extended Essay	Students are required to take one course from each of the six curricular groups listed below.* Three courses must be at the higher level (HL) and three must be at the standard level (SL.) *Students may choose to eliminate Group 6 and take two courses in another group.

Group 1: Language and Literature	Group 2: Language Acquisition	Group 3: Individuals and Societies	Group 4: Sciences	Group 5: Mathematics	Group 6: The Arts
English Language and Literature HL	Classical Lang: Latin HL/SL Language B: French HL/SL Language B: German HL/SL Language B: Spanish HL/SL Ab initio French SL Ab initio German SL Ab initio Spanish SL	Business Management HL Economics SL History of the Americas HL World Religions SL	Environmental Systems and Societies SL Physics HL/SL Sports, Exercise, and Health Science SL	Mathematics: Applications and Interpretation SL Mathematics: Analysis and Approaches HL	Film SL Visual Arts HL

Career-related Programme Requirements

Career-related Study Options	Pathway Assessment	Career-related Study Coursework	Career-related Core	Diploma Courses
Accounting & Finance	Microsoft Excel Certification	11 th grade - Advanced Accounting 2 12 th grade - Stocks & Investments 2/Little Lion Fund	Personal and Professional Skills course; Service Learning; Language Development; Reflective Project	2 IB Diploma Programme courses HL/SL (one course must be over two years)* *Students can choose from any of the six curricular groups
Engineering	NOCTI exam	11 th grade - Electrical Systems Engineering or Robotics Engineering 12 th grade - Adv. Engineering Tech./Adv. Physics		
Health Professions	NOCTI exam	11 th grade - Anatomy & Physiology 12 th grade - Nurse Aide Training		
Marketing	NOCTI exam	11 th grade - Retail Management 12 th grade - Leadership in Business		

IB Programmes

IB Business Mgt HL Y1

Course	Credits	Suggested Grade Level
I939	1	11-12

Prerequisites:

The IB Business Management course, a two-year course, is designed to develop students' knowledge and understanding of business management theories, as well as their ability to analyze, evaluate, and discuss business activities at local, national, and international levels. The course covers a range of organizations from all sectors, as well as the socio-cultural and economic contexts in which those organizations operate. The aim of this course is to develop a holistic understanding of business management, which includes finance, accounting, marketing, operations, and human resources. Through the exploration of six concepts underpinning the subject (change, culture, ethics, globalization, innovation, and strategy), the business management course allows students to develop their understanding of interdisciplinary concepts from a business management perspective.

IB Business Mgt HL Y2

Course	Credits	Suggested Grade Level
I940	1	12

Prerequisites: Completion of IB Business Mgt HL Y1

The IB Business Management course, a two-year course, is designed to develop students' knowledge and understanding of business management theories, as well as their ability to analyze, evaluate, and discuss business activities at local, national, and international levels. The course covers a range of organizations from all sectors, as well as the socio-cultural and economic contexts in which those organizations operate. The aim of this course is to develop a holistic understanding of business management, which includes finance, accounting, marketing, operations, and human resources. Through the exploration of six concepts underpinning the subject (change, culture, ethics, globalization, innovation, and strategy), the business management course allows students to develop their understanding of interdisciplinary concepts from a business management perspective.

IB Classical Lang Latin HL Y1

Course	Credits	Suggested Grade Level
I959	1	11-12

Prerequisites: Latin 2

Students in Advanced Latin Literature will explore universal elements of the human condition—creation, love, hubris, greed, and war—through the study of Roman civilization and the great works of Latin literature. Students will read mythological tales of transformation from Ovid's *Metamorphoses*, as well as selections of literature on the themes of love poetry and villains. Students will also analyze primary sources to understand how Classical civilizations perceived the world. Ultimately, through the study of the Classical past, students will gain new perspectives on today's world and on the future.

This course represents the first year of IB Classical Languages: Latin.

IB Classical Lang Latin HL Y2

Course	Credits	Suggested Grade Level
I960	1	12

Prerequisites: Completion of Classical Lang Latin HL Y1

Students in IB Classical Languages: Latin, a two-year course, will explore universal elements of the human condition—creation, love, hubris, greed, and war—through the study of Roman civilization and the great works of Latin literature. Students will read mythological tales of transformation from Ovid's *Metamorphoses*, as well as selections of literature on the themes of love poetry and villains. Students will also choose a topic on the Classical world, and will compile and analyze primary sources to understand how Classical civilizations perceived the world. Ultimately, through the study of the Classical past, students will gain new perspectives on today's world and on the future.



International
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CTC Course



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Keystone



Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

IB Programmes

IB Classical Lang Latin SL Y1

Course	Credits	Suggested Grade Level
I957	1	11-12

Prerequisites: Latin 2

Students in Advanced Latin Literature will explore universal elements of the human condition—creation, love, hubris, greed, and war—through the study of Roman civilization and the great works of Latin literature. Students will read mythological tales of transformation from Ovid's *Metamorphoses*, as well as selections of literature on the themes of love poetry and villains. Students will also analyze primary sources to understand how Classical civilizations perceived the world. Ultimately, through the study of the Classical past, students will gain new perspectives on today's world and on the future.

This course represents the first year of IB Classical Languages: Latin.

IB Classical Lang Latin SL Y2

Course	Credits	Suggested Grade Level
I958	1	12

Prerequisites: Completion of IB Lang Latin SL Y1

Students in Advanced Latin Literature will explore universal elements of the human condition—creation, love, hubris, greed, and war—through the study of Roman civilization and the great works of Latin literature. Students will read mythological tales of transformation from Ovid's *Metamorphoses*, as well as selections of literature on the themes of love poetry and villains. Students will also analyze primary sources to understand how Classical civilizations perceived the world. Ultimately, through the study of the Classical past, students will gain new perspectives on today's world and on the future.

This course represents the first year of IB Classical Languages: Latin.

IB Economics SL

Course	Credits	Suggested Grade Level
I941	1	11-12

Prerequisites:

The IB Economics course is a study in both macroeconomics and microeconomics, with an emphasis on applying economic concepts and theories to real-world issues. Prominent among these issues are fluctuations in economic activity, international trade, economic development and environmental sustainability. Additionally, students will engage in a study of international economies, as well as developing economies. Participants will investigate the ethical dimensions involved in applying economic policies and practices, and attention will be paid to the development of possible solutions to the economic challenges that we face as an increasingly interdependent and global society.

IB Enviro Systems & Soc SL

Course	Credits	Suggested Grade Level
I933	1	11-12

Prerequisites:

Through studying environmental systems and societies, students will be provided with a coherent perspective of the interrelationships between environmental systems and societies; one that enables them to adopt an informed personal response to the wide range of pressing environmental issues that they will inevitably come to face. The teaching approach is such that students are allowed to evaluate the scientific, ethical, and socio-political aspects of issues. An important aspect of the class is the hands-on laboratory work and field experiences. Topics include structure, measuring abiotic components of the system, measuring biotic components of the system, biomes, function, changes, and measuring changes in a system.



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Weighted Course



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IB Programmes

IB Film SL

Course Credits Suggested Grade Level 11-12
I915 1 Prerequisites: Completion of Cinema Arts or online course

The IB Film course aims to develop students as proficient interpreters and makers of film texts. Through the study and analysis of film texts, and through practical exercises in film production, the film course develops students' critical abilities and their appreciation of artistic, cultural, historical, and global perspectives in film. Students examine film concepts, theories, practices and ideas from multiple perspectives, challenging their own viewpoints and biases in order to understand and value those of others. IB Film students will work collaboratively to experiment with film and multimedia technology, acquiring the skills and creative competencies required to successfully communicate through the language of the medium. It focuses on the international and intercultural dynamic that triggers and sustains contemporary film, while fostering in students an appreciation of the development of film across time, space and culture. IB Film students are challenged to acquire and develop critical thinking, reflective analysis, and the imaginative synthesis that is achieved through practical engagement in the art, craft, and study of film.

IB History of Americas HL Y1

Course Credits Suggested Grade Level 11-12
I942 1 Prerequisites:

The History of the Americas course is a two-year course, which will include a study of global history and issues, with an emphasis on Canada, Latin America, and the United States. Students will study a variety of historical periods and events, including the Great Depression, World War 2, the Cold War, and civil rights and civil liberties. This course is designed to promote and enhance a student's critical thinking skills, and to allow students to learn history by investigating multiple perspectives and making comparisons over time.

IB History of Americas HL Y2

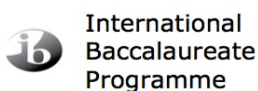
Course Credits Suggested Grade Level 12
I943 1 Prerequisites: Completion of IB History of Americas HL Y1

The History of the Americas course is a two-year course, which will include a study of global history and issues, with an emphasis on Canada, Latin America, and the United States. Students will study a variety of historical periods and events, including the Great Depression, World War 2, the Cold War, and civil rights and civil liberties. This course is designed to promote and enhance a student's critical thinking skills, and to allow students to learn history by investigating multiple perspectives and making comparisons over time.

IB Lang A: Lang & Lit HL Y1

Course Credits Suggested Grade Level 11-12
I918 1 Prerequisites: English 9/Adv English 9 and English 10/Adv English 10

This two-year higher level course introduces the critical study and interpretation of written and spoken texts from a wide range of literary and non literary genres. The formal analysis of texts is supplemented by awareness that meaning is not fixed but can change in respect to contexts of production and consumption. The course is organized into four parts, each focused on the study of either literary or non-literary texts. Together, the four parts of the course allow the student to explore the English language through its cultural development and use, its media forms and functions, and its literature. Students develop skills of literary and textual analysis, and also the ability to present their ideas effectively. A key aim is the development of critical literacy. There are four IB assessments: Paper 1, Paper 2, Individual Oral, and HL essay. This is a required course for students seeking an IB Diploma (DP Programme).



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Alternating Year Course

Course Number Key
H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

IB Programmes

IB Lang A: Lang & Lit HL Y2

Course	Credits	Suggested Grade Level
I919	1	12

Prerequisites: Completion of I918 IB Lang A: Lang & Lit HL Y1

This two-year higher level course introduces the critical study and interpretation of written and spoken texts from a wide range of literary and non literary genres. The formal analysis of texts is supplemented by awareness that meaning is not fixed but can change in respect to contexts of production and consumption. The course is organized into four parts, each focused on the study of either literary or non-literary texts. Together, the four parts of the course allow the student to explore the English language through its cultural development and use, its media forms and functions, and its literature. Students develop skills of literary and textual analysis, and also the ability to present their ideas effectively. A key aim is the development of critical literacy. There are four IB assessments: Paper 1, Paper 2, Individual Oral, and HL essay. This is a required course for students seeking an IB Diploma (DP Programme).

IB Lang ab initio French SL Y1

Course	Credits	Suggested Grade Level
I961	1	11-12

Prerequisites:

This course represents the first year of IB ab initio: French. Students will engage in activities specific to assessment preparation and work to develop the skills needed to succeed on the different parts of the IB exams. To earn the weighted credits, students must complete all requirements of this IB course.

IB Lang ab initio French SL Y2

Course	Credits	Suggested Grade Level
I964	1	12

Prerequisites: IB Lang ab initio French SL Y1

This course represents the second year of IB ab initio: French. Students will engage in activities specific to assessment preparation and work to develop the skills needed to succeed on the different parts of the IB exams. To earn the weighted credits, students must complete all requirements of this IB course.

IB Lang ab initio German SL Y1

Course	Credits	Suggested Grade Level
I962	1	11-12

Prerequisites:

This course represents the first year of IB ab initio: German. Students will engage in activities specific to assessment preparation and work to develop the skills needed to succeed on the different parts of the IB exams. To earn the weighted credits, students must complete all requirements of this IB course.

IB Lang ab initio German SL Y2

Course	Credits	Suggested Grade Level
I965	1	12

Prerequisites: IB Lang ab initio German SL Y1

This course represents the second year of IB ab initio: German. Students will engage in activities specific to assessment preparation and work to develop the skills needed to succeed on the different parts of the IB exams. To earn the weighted credits, students must complete all requirements of this IB course.



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IB Programmes

IB Lang ab initio Spanish SL Y1

Course	Credits	Suggested Grade Level
I963	1	11-12

Prerequisites:

This course represents the first year of IB ab initio: Spanish. Students will engage in activities specific to assessment preparation and work to develop the skills needed to succeed on the different parts of the IB exams. To earn the weighted credits, students must complete all requirements of this IB course.

IB Lang ab initio Spanish SL Y2

Course	Credits	Suggested Grade Level
I966	1	12

Prerequisites: IB Lang ab initio Spanish SL Y1

This course represents the second year of IB ab initio: Spanish. Students will engage in activities specific to assessment preparation and work to develop the skills needed to succeed on the different parts of the IB exams. To earn the weighted credits, students must complete all requirements of this IB course.

IB Language B French HL Y1

Course	Credits	Suggested Grade Level
I947	1	11-12

Prerequisites: French 3

Students expand and refine their communicative, cultural, and grammatical competencies in French through exploring the relationships between francophone cultures and the students' own cultures. Students learn to recognize and demonstrate an awareness of the interrelatedness of languages, literatures, and cultures through knowledge of the artifacts, expressions, and traditions of French speakers around the world.

IB Language B French HL Y2

Course	Credits	Suggested Grade Level
I948	1	12

Prerequisites: Completion of IB Language B French HL Y1

Students in French, a two-year course, will continue to expand on previously learned communicative, cultural and grammatical concepts by exploration of various cultural contexts in Francophone cultures and within the student's own culture. Students will learn to recognize and demonstrate an awareness of the interrelatedness of languages, literature, and cultures through knowledge of the artifacts, expressions, and traditions of Francophone cultures. Students will learn to use a variety of strategies to effectively communicate in French while exploring the five prescribed themes.

This course represents the second year of IB Language B: French.

IB Language B French SL Y1

Course	Credits	Suggested Grade Level
I945	1	11-12

Prerequisites: French 3

Students expand and refine their communicative, cultural, and grammatical competencies in French through exploring the relationships between francophone cultures and the students' own cultures. Students learn to recognize and demonstrate an awareness of the interrelatedness of languages, literatures, and cultures through knowledge of the artifacts, expressions, and traditions of French speakers around the world.



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Weighted Course



Alternating Year
Course

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V- Virtual I- IB Programme

IB Programmes

IB Language B French SL Y2

Course	Credits	Suggested Grade Level
I946	1	12

Prerequisites: Completion of IB Language B French SL Y1

Students in French, a two-year course, will continue to expand on previously learned communicative, cultural and grammatical concepts by exploration of various cultural contexts in Francophone cultures and within the student's own culture. Students will learn to recognize and demonstrate an awareness of the interrelatedness of languages, literature, and cultures through knowledge of the artifacts, expressions, and traditions of Francophone cultures. Students will learn to use a variety of strategies to effectively communicate in French while exploring the five prescribed themes.

This course represents the second year of IB Language B: French.

IB Language B German HL Y1

Course	Credits	Suggested Grade Level
I951	1	11-12

Prerequisites: German 3

Students expand and refine their communicative, cultural, and grammatical competencies in German through exploring the relationships between German-speaking cultures and the students' own cultures. Students learn to recognize and demonstrate an awareness of the interrelatedness of languages, literatures, and cultures through knowledge of the artifacts, expressions, and traditions of German speakers around the world. Class is conducted in German.

This course represents the first year of IB Language B: German.

IB Language B German HL Y2

Course	Credits	Suggested Grade Level
I952	1	12

Prerequisites: Completion of IB Language B German HL Y1

Students in German, a two-year course, will continue to expand on previously learned communicative, cultural and grammatical concepts by exploration of various cultural contexts in Germanic cultures and within the student's own culture. Students will learn to recognize and demonstrate an awareness of the interrelatedness of languages, literature, and cultures through knowledge of the artifacts, expressions, and traditions of Germanic cultures. Students will learn to use a variety of strategies to effectively communicate in German while exploring the five prescribed themes.

This course represents the second year of IB Language B: German.

IB Language B German SL Y1

Course	Credits	Suggested Grade Level
I949	1	11-12

Prerequisites: German 3

Students expand and refine their communicative, cultural, and grammatical competencies in German through exploring the relationships between German-speaking cultures and the students' own cultures. Students learn to recognize and demonstrate an awareness of the interrelatedness of languages, literatures, and cultures through knowledge of the artifacts, expressions, and traditions of German speakers around the world. Class is conducted in German.

This course represents the first year of IB Language B: German.



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Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

IB Programmes

IB Language B German SL Y2

Course	Credits	Suggested Grade Level
I950	1	12

Prerequisites: Completion of IB Language B German SL Y1

Students in German, a two-year course, will continue to expand on previously learned communicative, cultural and grammatical concepts by exploration of various cultural contexts in Germanic cultures and within the student's own culture. Students will learn to recognize and demonstrate an awareness of the interrelatedness of languages, literature, and cultures through knowledge of the artifacts, expressions, and traditions of Germanic cultures. Students will learn to use a variety of strategies to effectively communicate in German while exploring the five prescribed themes.

This course represents the second year of IB Language B: German.

IB Language B Spanish HL Y1

Course	Credits	Suggested Grade Level
I955	1	11-12

Prerequisites: Spanish 3

This advanced, weighted course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness.

The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions). It engages students in an exploration of culture in both contemporary and historical contexts.

To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish.

This course represents the first year of IB Language B: Spanish

IB Language B Spanish HL Y2

Course	Credits	Suggested Grade Level
I956	1	12

Prerequisites: Completion of IB Language B Spanish HL Y1

Students in Spanish, a two-year course, will continue to expand on previously learned communicative, cultural and grammatical concepts by exploration of various cultural contexts in Hispanic cultures and within the student's own culture. Students will learn to recognize and demonstrate an awareness of the interrelatedness of languages, literature, and cultures through knowledge of the artifacts, expressions, and traditions of Hispanic cultures. Students will learn to use a variety of strategies to effectively communicate in Spanish while exploring the five prescribed themes.

This course represents the second year of IB Language B: Spanish.



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CTC Course



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Weighted Course



Alternating Year
Course

Course Number Key

H- Hybrid Y- Year-Long
S- Semester B- Before School
V- Virtual I- IB Programme

IB Programmes

IB Language B Spanish SL Y1

Course	Credits	Suggested Grade Level
I953	1	11-12

Prerequisites: Spanish 3

This advanced, weighted course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness.

The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions). It engages students in an exploration of culture in both contemporary and historical contexts.

To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish.

This course represents the first year of IB Language B: Spanish

IB Language B Spanish SL Y2

Course	Credits	Suggested Grade Level
I954	1	12

Prerequisites: Completion of IB Language B Spanish SL Y1

Students in Spanish, a two-year course, will continue to expand on previously learned communicative, cultural and grammatical concepts by exploration of various cultural contexts in Hispanic cultures and within the student's own culture. Students will learn to recognize and demonstrate an awareness of the interrelatedness of languages, literature, and cultures through knowledge of the artifacts, expressions, and traditions of Hispanic cultures. Students will learn to use a variety of strategies to effectively communicate in Spanish while exploring the five prescribed themes.

This course represents the second year of IB Language B: Spanish.

IB Math Analysis & Appr HL Y1

Course	Credits	Suggested Grade Level
I927	1	11-12

Prerequisites: Adv Honors Precalculus

Mathematics: Analysis and Approaches HL, a two-year course, is appropriate for students who enjoy developing their mathematics to become fluent in the construction of mathematical arguments and develop strong skills in mathematical thinking. They will also be fascinated by exploring real and abstract applications of these ideas, with and without the use of technology. Students who take Mathematics: Analysis and Approaches will be those who enjoy the thrill of mathematical problem solving and generalization. This subject is aimed at students who will go on to study subjects with substantial mathematics content such as mathematics itself, engineering, physical sciences, or economics for example. Mathematics: Analysis and Approaches HL includes all of the content of the SL course and substantial additional and more complex content in number, algebra, functions, geometry, trigonometry, statistics, probability, and calculus. Students will complete investigation, inquiry and problem-solving activities including completing an assessment which enables students to undertake a piece of research which interests them and models the type of mathematical activity undertaken in the modern world.



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IB Programmes

IB Math Analysis & Appr HL Y2

Course	Credits	Suggested Grade Level
I928	1	12

Prerequisites: Completion of IB Math Analysis & Appr HL Y1

Mathematics: Analysis and Approaches HL, a two-year course, is appropriate for students who enjoy developing their mathematics to become fluent in the construction of mathematical arguments and develop strong skills in mathematical thinking. They will also be fascinated by exploring real and abstract applications of these ideas, with and without the use of technology. Students who take Mathematics: Analysis and Approaches will be those who enjoy the thrill of mathematical problem solving and generalization. This subject is aimed at students who will go on to study subjects with substantial mathematics content such as mathematics itself, engineering, physical sciences, or economics for example. Mathematics: Analysis and Approaches HL includes all of the content of the SL course and substantial additional and more complex content in number, algebra, functions, geometry, trigonometry, statistics, probability, and calculus. Students will complete investigation, inquiry and problem-solving activities including completing an assessment which enables students to undertake a piece of research which interests them and models the type of mathematical activity undertaken in the modern world.

IB Math Applic & Interp SL Y1

Course	Credits	Suggested Grade Level
I921	1	11-12

Prerequisites: CP Algebra 1 & CP Geometry

Mathematics: Applications and Interpretations SL, a two-year course, is appropriate for students who are interested in developing their mathematics for describing our world and solving practical problems. They will also be interested in harnessing the power of technology alongside exploring mathematical models. Students who take Mathematics: Applications and Interpretations will be those who enjoy mathematics best when seen in a practical context. This subject is aimed at students who will go on to study subjects such as social sciences, natural sciences, statistics, business, some economics, psychology, and design, for example. Content will include the study of topics in number, algebra, functions, geometry, trigonometry, statistics, probability, and calculus. Students will complete investigation, inquiry and problem-solving activities including completing an assessment which enables students to undertake a piece of research which interests them and models the type of mathematical activity undertaken in the modern world.

IB Math Applic & Interp SL Y2

Course	Credits	Suggested Grade Level
I922	1	12

Prerequisites: Completion of IB Math Applic & Interp SL Y1

Mathematics: Applications and Interpretations SL, a two-year course, is appropriate for students who are interested in developing their mathematics for describing our world and solving practical problems. They will also be interested in harnessing the power of technology alongside exploring mathematical models. Students who take Mathematics: Applications and Interpretations will be those who enjoy mathematics best when seen in a practical context. This subject is aimed at students who will go on to study subjects such as social sciences, natural sciences, statistics, business, some economics, psychology, and design, for example. Content will include the study of topics in number, algebra, functions, geometry, trigonometry, statistics, probability, and calculus. Students will complete investigation, inquiry and problem-solving activities including completing an assessment which enables students to undertake a piece of research which interests them and models the type of mathematical activity undertaken in the modern world.

IB Personal & Prof Skills Y1

Course	Credits	Suggested Grade Level
I913	1	11-12

Prerequisites:

This two-year course focuses on the development of attitudes, skills, and strategies to be applied in personal and professional situations. This is a required course for students seeking the IB certificate. The five themes that are integrated in this course and through the career-related programme include: applied ethics, personal development, intercultural understanding, thinking processes, and effective communication.



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IB Programmes

IB Personal & Prof Skills Y2

Course	Credits	Suggested Grade Level
I914	1	12 Prerequisites: Completion of I913 IB Personal & Prof Skills Y1

This two-year course focuses on the development of attitudes, skills, and strategies to be applied in personal and professional situations. This is a required course for students seeking the IB certificate. The five themes that are integrated in this course and through the career-related programme include: applied ethics, personal development, intercultural understanding, thinking processes, and effective communication.

IB Physics HL Y1

Course	Credits	Suggested Grade Level
I935	1.5000	11-12 Prerequisites: Algebra 2

This two-year course Physics course explores the most fundamental of the experimental sciences and seeks to explain the workings of the universe. Physics will be investigated through experimentation, projects, and mathematical modeling with an emphasis on communication. The societal, economic, and environmental impacts of physics will be discussed as well as the moral and ethical dilemmas associated with the various topics covered. These topics will include measurement and uncertainty, mechanics, thermal physics, waves, electricity and magnetism, circular motion and gravitation, atomic, nuclear, and particle physics, energy production, wave phenomena, fields, electron magnetic induction, and quantum physics.

IB Physics HL Y2

Course	Credits	Suggested Grade Level
I936	.5	12 Prerequisites: Completion of IB Physics HL Y1

This two-year course Physics course explores the most fundamental of the experimental sciences and seeks to explain the workings of the universe. Physics will be investigated through experimentation, projects, and mathematical modeling with an emphasis on communication. The societal, economic, and environmental impacts of physics will be discussed as well as the moral and ethical dilemmas associated with the various topics covered. These topics will include measurement and uncertainty, mechanics, thermal physics, waves, electricity and magnetism, circular motion and gravitation, atomic, nuclear, and particle physics, energy production, wave phenomena, fields, electron magnetic induction, and quantum physics.

IB Physics SL

Course	Credits	Suggested Grade Level
I934	1.5000	11-12 Prerequisites: Algebra 2

This one-year Physics course explores the most fundamental of the experimental sciences and seeks to explain the workings of the universe. Physics will be investigated through experimentation, projects, and mathematical modeling with an emphasis on communication. The societal, economic, and environmental impacts of physics will be discussed as well as the moral and ethical dilemmas associated with the various topics covered. These topics will include measurement and uncertainty, mechanics, thermal physics, waves, electricity and magnetism, circular motion and gravitation, atomic, nuclear, and particle physics, and energy production.



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IB Programmes

IB Sports, Exercise & Health SL

Course	Credits	Suggested Grade Level
I920	1	11-12

Prerequisites: Wellness & Bio 1

Sports, exercise and health science (SEHS) is an experimental science course combining academic study with practical and investigative skills. SEHS explores the science underpinning physical performance and provides the opportunity to apply these principles. The course incorporates the disciplines of anatomy and physiology, biomechanics, psychology, and nutrition. Students cover a range of core and option topics, and carry out practical (experimental) investigations in both laboratory and field settings. The course offers a deeper understanding of the issues related to sports, exercise, and health in the 21st century and addresses the international dimension and ethics related to both the individual and global context. SEHS units include anatomy, exercise physiology, energy systems, movement analysis, skill in sports, measurement and evaluation of human performance, psychology of sport, and physical activity and health. Students are required to participate in IB Assessments for this course.

This course will count as a weighted grade, phys ed and health class for students enrolled in the IB Diploma Programme only. For all non-IB Diploma students, this course will count as a weighted grade elective course only.

IB Theory of Knowledge Y1

Course	Credits	Suggested Grade Level
I911	1	11-12

Prerequisites:

This two-year course focuses on critical thinking and inquiring into the process of knowing, rather than about learning a specific body of knowledge. This is a required course for students seeking an IB diploma. It plays a special role in the Diploma Programme by providing an opportunity for students to reflect on the nature of knowledge, to make connections between areas of knowledge and to become aware of their own perspectives and those of the various groups whose knowledge they share. It is a core element undertaken by all DP students. The overall aim of TOK is to encourage students to formulate answers to the question "how do you know?" in a variety of contexts, and to see the value of that question. This allows students to develop an enduring fascination with the richness of knowledge. Students will develop knowledge claims and examine the distinction between shared knowledge and personal knowledge. There are two external IB assessments: a real-life situation presentation and a prompt-based essay.

IB Theory of Knowledge Y2

Course	Credits	Suggested Grade Level
I912	1	12

Prerequisites: Completion of I911 IB Theory of Knowledge Y1

This two-year course focuses on critical thinking and inquiring into the process of knowing, rather than about learning a specific body of knowledge. This is a required course for students seeking an IB diploma. It plays a special role in the Diploma Programme by providing an opportunity for students to reflect on the nature of knowledge, to make connections between areas of knowledge and to become aware of their own perspectives and those of the various groups whose knowledge they share. It is a core element undertaken by all DP students. The overall aim of TOK is to encourage students to formulate answers to the question "how do you know?" in a variety of contexts, and to see the value of that question. This allows students to develop an enduring fascination with the richness of knowledge. Students will develop knowledge claims and examine the distinction between shared knowledge and personal knowledge. There are two external IB assessments: a real-life situation presentation and a prompt-based essay.

IB Visual Arts HL Y1

Course	Credits	Suggested Grade Level
I916	1	11-12

Prerequisites:

The Visual Arts course, which is a two-year course, encourages students to challenge their own creative and cultural expectations and boundaries. It is a thought-provoking course in which students develop analytical skills in problem-solving and divergent thinking, while working towards technical proficiency and confidence as art-makers. In addition to exploring and comparing visual arts from different perspectives and in different contexts, students are expected to engage in, experiment with, and critically reflect upon a wide range of contemporary practices and media. The course is designed for students who want to go on to study visual arts in higher education as well as for those who are seeking lifelong enrichment through visual arts.



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IB Programmes

IB Visual Arts HL Y2

Course Credits Suggested Grade Level 12
I917 1 Prerequisites: Completion of I916 IB Visual Arts HL Y1

The Visual Arts course, which is a two-year course, encourages students to challenge their own creative and cultural expectations and boundaries. It is a thought-provoking course in which students develop analytical skills in problem-solving and divergent thinking, while working towards technical proficiency and confidence as art-makers. In addition to exploring and comparing visual arts from different perspectives and in different contexts, students are expected to engage in, experiment with, and critically reflect upon a wide range of contemporary practices and media. The course is designed for students who want to go on to study visual arts in higher education as well as for those who are seeking lifelong enrichment through visual arts.

IB World Religions SL

Course Credits Suggested Grade Level 11-12
I944 1 Prerequisites: World History 2, Adv World History 2 or AP World History

The World Religions course seeks to promote respect for the diversity of religious beliefs, both locally and globally, with the aim of enhancing international and inter-religious understanding. This course will utilize historical and religious facts and experiences in order to engage students in an academic study of world religions. Each year, students will examine five to seven different world religions for the purpose of gaining a greater understanding of diverse religious and cultural perspectives. The course will be organized and structured around three fundamental questions which include: (1) What is the human condition? (2) Where are we going? (3) How do we get there?



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General Information

Advanced Courses and Advanced Placement (AP) Courses

In advanced courses students will be expected to work with greater rigor and at a more challenging pace. To compensate for the difficulty of advanced or AP courses, different point values (weights) are assigned to grades earned in these courses: A = 5, B = 4, C = 3, D = 2, E = 0 points.

<p><u>Art Program</u> Advanced Photography AP Art History AP Studio Art IB Film SL IB Visual Art HL</p> <p><u>Career and Technical Center</u> Advanced Accounting 1 Advanced Accounting 2 Advanced Arch Draft & Design 3 Advanced Arch Draft & Design 4 Advanced Automotive Technology Advanced Building Construction 3 & 4 Advanced Engineering Technology Advanced Networking Cisco 1 Advanced Networking Cisco 2 Advanced Personal Training Advanced Program Essentials in C++ Advanced Program Essentials in C++ 2 Advanced SQL Advanced Stock Invest 2 / Little Lion Fund AP Computer Science Principles</p> <p><u>English Program</u> Advanced English 9 Advanced English 10 Advanced English 11 Advanced Journalism 2 AP English Language and Composition(11th Gr) AP English Literature and Composition (12th Gr) IB Lang & Lit HL</p> <p><u>Health / Physical Education</u> IB Sports Exercise & Health Science</p> <p><u>Math Program</u> Advanced Algebra 2 Advanced Geometry Advanced Precalculus</p>	<p>Advanced Honors Precalculus Advanced Topics in Mathematics AP Statistics AP Computer Science AP Calculus AB AP Calculus BC IB Math Applic & Interp SL IB Math Analysis & Approach HL</p> <p><u>Music Program</u> Advanced Band Advanced Choir Advanced Rock Ensemble Advanced Strings AP Music Theory</p> <p><u>Science Program</u> Advanced Astronomy Advanced Biology 1 Advanced Botany Advanced Chemistry 1 Advanced Chemistry 2 Advanced Earth Systems Sci 1 Advanced Genetics Advanced Geology Advanced Meteorology Advanced Molecular and Cellular Bio Advanced Oceanography Advanced Physics 1 AET Advanced Topics in Physics Advanced Zoology AP Physics 1+ AP Physics C: Mech, Elect & Magnetism IB Enviro Systems & Soc SL / HL IB Physics SL / HL</p> <p><u>Social Studies Program</u> Advanced World History 2</p>	<p>Advanced World Religions AP Comparative Government AP European History (Early) AP European History (Recent) AP Human Geography AP Psychology AP US Government and Politics AP US History AP World History IB Business Mgt HL IB Economics SL IB History of Americans HL IB World Religions SL</p> <p><u>Technology Education</u> Advanced Coding & Game Development Advanced Computer Engineering Graphics Advanced Technology Research & Design</p> <p><u>World Language Program</u> Advanced French 4 Advanced German 4 Advanced Latin Lit A Advanced Latin Lit B Advanced Spanish 4 AP Chinese Language & Culture AP French Language & Culture AP German Language & Culture AP Spanish Language & Culture IB Lang B French SL / HL IB Lang B German SL / HL IB Lang B Spanish SL / HL IB Classical Lang Latin SL / HL IB Lang ab initio French SL IB Lang ab initio German SL IB Lang ab initio Spanish SL</p>
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Grade Point Average

A student's grade point average (GPA) is determined by multiplying the point value of the grade earned in each subject by the credit for the course. Point values are assigned to grades as follows: A = 4 points, B = 3 points, C = 2 points, D = 1 point, and E = 0 points. One additional point is awarded for Advanced and Advanced Placement courses. The total number of points is then divided by the total number of credits. The GPA's are determined at the end of each semester. The GPA is a cumulative average beginning when a student first enrolls in a high school class.

The following examples show how to compute GPA:

<u>9th Grade</u>	<u>Mark</u>	<u>(Point Value) X</u>	<u>10th Grade</u>	<u>Mark</u>	<u>(Point Value) X</u>
		<u>Course Credit</u>			<u>Course Credit</u>
Adv English 09	A	(5) x 1.00 = 5.00	Adv. English 10	A	(5) x 1.00 = 5.00
Adv World History	C	(3) x 1.00 = 3.00	World History 2	B	(3) x 1.00 = 3.00
Earth Systems Science 1	B	(3) x 1.00 = 3.00	Biology 1	A	(4) x 1.00 = 4.00
Algebra 1	B	(3) x 1.00 = 3.00	Geometry	A	(4) x 1.00 = 4.00
Phys. ED 09	C	(2) x 0.5 = 1.00	Phys Ed 10	B	(3) x 0.5 = 1.50
Health	B	(3) x 0.5 = 1.50	Driver Education	A	(4) x 0.2 = 0.80
French 1	C	(2) x 1.00 = 2.00	Spanish 2	C	(2) x 1.00 = 2.00
Typing 1	B	(3) x 0.5 = 1.50			
TOTALS		20.00 divided by 6.50 credits = 3.0769			20.30 divided by 5.70 credits = 3.5614

Besides helping a student to be more competitive for entry to post high school opportunities, a student with a high GPA enjoys other benefits. For example, GPA is the basis for many high school honors.

Honor Roll: Published at the end of EACH marking period, if the GPA is 3.50 or higher, the student will be listed as receiving High Honors. If the GPA is 3.0 – 3.49, the student will be listed as receiving Honors. Calculations are based on using a weighted and unweighted GPA. If the student received a grade of D, E, or I, he/she will not be eligible for Honor Roll for that particular nine-week marking period.

Rank in Class

Rank in class is not reported as part of the student transcript. A student's individual class rank may be obtained by written request to the Counseling Office.

Course Cancellation Policy

If a course is canceled as a result of low enrollment, students will be assisted in selecting an alternative course.

Grading Options

Pass –Fail Grade (P or F)

A pass-fail grading system may be used only:

If the course is designated as pass-fail in this Course Selection Guide.

If an English as a Second Language (ESL) student is recommended as a candidate for pass-fail grading by the ESL teacher and approval is granted by an administrator.

If a prearranged independent contract for a student in Special Education, Course by Appt. or Learning Enrichment Chapter 6 option includes a pass-fail grading option and approval is granted by an administrator.

When a pass-fail option is used, a pass will result in counting the course credit for graduation, but not for GPA calculation.

Audit

The decision to audit a course must be approved by the teacher before the 5th week of a semester course or 10th week of a full year course. The student will do all of the required work for the course. No final cumulative grade or credit will be awarded for a course audit.

Course Transfer Policy

When a student transfers from an advanced to a non-advanced course, his/her grades/percentages will reflect the weight of the advanced course calculated with the non-advanced grade. For example, if a student takes 5 weeks of an advanced course earning a 65% and decides to change levels to a non-advanced course, the grade will reflect the weight and transfer at 75%. This allows the student to carry earned credit for an increased workload and more difficult content.

*Students will not be permitted to transfer from a non-advanced course to an advanced course beyond the 2nd week of school without receiving teacher and administration approval.

Grade for Repeated Course

When a student gets a D or an E, he/she may repeat the same course or a District approved equivalent course (and District virtual course) and have that grade replaced on the report card and transcript for the repeated course. The new grade will be used for the calculation of GPA and class rank. A repeated course may be counted only once for graduation credit.

If a student should remediate a course by taking a similar course in an approved program, the grade and credit earned will be added to the transcript along with the original grade and credit to compute GPA and class rank.

Grade for Course Taken Prior to 9th Grade

SCASD classes taken prior to entering 9th grade will appear on the SCASD HS transcript but will not be calculated in the GPA. This is true for any high school level courses taken in another school district prior to the 9th grade.

Student Activities

As students decide which courses they wish to take each year, they should also consider participation in extracurricular activities. For many students, these activities provide opportunities and experiences which not only make high school more enjoyable, but also influence and sometimes determine future choices in both education and career paths. This listing gives some idea of the range of activities offered. Further information is available through the Student Activities Office of the high school.

<p>Acclivity Club Aeronautics Club* Anime Club Artist Residency Club* Auto Club (CTC club) Battle of the Bands (event) Best Buddies Bio-Tech Club* Book Club Broadcasting Club - WSCH Chemistry/Physics Club* Chess Club Chinese Club* Cultural Experience Club Dance Team D.E.C.A. (CTC club) Diversity and Activism Club Empowher* Environmental Club F.F.A., State College Little Lions (CTC club) Fine Art Club Fitness Center Club Forensics Club French Club Future Business Leaders of America (CTC club) German Club Girls Rugby The Hack Club* Health Occupations Students of America (CTC club)</p>	<p>Ice Hockey Club Sport Interact Club Key Club KIVA Club Latin Club Lesbian, Gay, Bisexual, Transgender Alliance+ Linguistics Club* Little Lion Ambassadors* Music Activities: ♪ Chamber Singers, Concert Choir, Master Singers, Ninth Grade Choir, Tenth Grade Choir, Concert Band, Jazz Band, Marching Band, Ninth Grade Band, State Band, Symphonic Band, Tenth Grade, Band, Jazz Band 2, Ninth Grade Orchestra, String Orchestra, Orchestra, SHA-capella, Musical Pit Orchestra Majorettes / Color Guard / Silks Math Club Military Science Club* Mini-THON* Mock Trial Model United Nations Club Music Ensemble Club* My Mental Health Matters National Honor Society National Arts Honor Society National Home Builders Assoc. (CTC club) National Technical Honor Society (CTC club) Outing Club</p>	<p>Philosophy Club* Pottery Club Quiz Bowl Renaissance Faire (event) Rugby Club Sport Rock Ensemble Science Bowl Science Olympiad Set Design/Construction Senior Video Club Senior Video Club Ski Club Skills USA (CTC club) Spanish Club Stage Crew State High Anglers' Club* State High Publications – Lion's Digest & Little Lion Yearbook Student Government Student Senates Class of 2020 – Seniors Class of 2021 – Juniors Class of 2022– Sophomores Class of 2023 – Freshmen Technology Student Association (CTC club) Thespians Tri-M Music Honor Society Wild Dream Team Work Experience Club (CTC club) Yoga Club</p>
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Music Performing Ensembles

CHOIR

9TH Grade Choir
 10TH Grade Choir
 Concert Choir - Cecilia Singers (Gr. 11-12)
 Concert Choir - OMA (Gr. 11-12)
 Master Singers (Adv Choir)
 Chamber Singers
 Treble Makers

BAND

9TH Grade Band
 10TH Grade Band
 Concert Band (Gr. 11-12)
 Symphonic Band (Adv Band)
 Jazz Band
 Jazz Band 2
 Marching Band

ORCHESTRA

9TH Grade Orchestra
 Symphonic Orchestra (Gr. 10-12)
 String Orchestra (Adv Strings)
 Chamber Orchestra

ROCK

Rock Ensemble
 Adv Rock Ensemble

P.I.A.A. Affiliated Interscholastic Athletics, 9 – 12th Grades

Male

Baseball	Soccer
Basketball	Swimming & Diving
Cross Country	Tennis
Football	Track & Field
Golf	Volleyball
Lacrosse	Wrestling
Indoor Track	

Female

Basketball	Soccer
Cheerleading	Softball
Cross Country	Swimming & Diving
Field Hockey	Tennis
Golf	Track & Field
Lacrosse	Volleyball
Indoor Track	

To be eligible for interscholastic athletic competition, a student must meet all Pennsylvania Interscholastic Athletic Association and State College Area School District current requirements. Questions about those specifics can be directed to the school district's Director of Athletics.

Intramural Athletics, 9 – 12th Grades

All S.C.A.H.S. students are eligible to participate in intramurals. Tentative offerings include the following.

Basketball

Bowling

Skiing

Information regarding intramurals is announced through the public address morning and special announcements in a timely manner. Specific questions may be directed to the school district's Director of Athletics.

The State College Area School District is an equal opportunity education institution and will not discriminate on the basis of race, color, age, creed, religion, gender, sexual orientation, gender identity, ancestry, national origin or disability in its activities, programs, or employment practices as required by Title VI, Title IX, Section 504, and Americans with Disabilities Act. For information regarding civil rights, grievance procedures and services, or activities and facilities that are accessible to and usable by persons with disabilities, contact the Compliance Officer, State College Area School District, 240 Villa Crest Drive, State College, PA 16801, (814) 231-1051.