

Duanesburg
Jr./Sr. High School
Program of Studies
Guide
2017-2018



General Program Information

Schedule

- Fall Semester/Spring Semester (20-weeks each)
- Two 10-week periods in each
- Four-day cycle (days 1 through 4)
- Core classes run every day
- Electives run every other day or every day for ½ year

Credit

A credit is an indicator of the value the school gives to a course. The credit is based on the time and work involved in a course. For example, English 9 is a full year course, so it earns 1.0 credit. Food & Nutrition meets every other day for one half of the school year semester and earns 0.50 credits. Courses that meet every other day (odd or even) for the entire school year would also carry 0.50 credits. You must earn a certain number of credits from certain subject areas and pass the required courses for 9th, 10th, 11th and 12th grade, which are listed under graduation requirements.

Minimum Credit/Course Load

Students in grades 9-11 must take a minimum of 6.0 credits including required courses, such as Physical Education. Seniors need to complete necessary credits to graduate and/or be scheduled for a minimum of 5.5 credits. Students should carry a course load that they are able to manage while still being challenged academically.

Grade Placement/Promotion

Promotion to the next grade level is determined during the summer (prior to the start of school). Grade level is determined by the number of credits a student has earned. The year that a student enters 9th grade does not determine grade level or graduation year (but rather determines graduation requirements).

- Grade 7-completion of 6th grade
- Grade 8-completion of 7th grade
- Grade 9-completion of 8th grade
- Grade 10-must have earned a minimum of 5.5 credits
- Grade 11-must have earned a minimum of 11 credits
- Grade 12-must have earned a minimum of 16.5 credits

Prerequisites

A prerequisite is a requirement that students must meet before a certain course can be taken. For example, to take 2-D Art, a student must complete Studio Art prior. AP and UHS courses have other prerequisites. Some prerequisites may include, a completion of a previous course, completion of or minimum grade on a Regents exam, or minimum previous course average.

Electives

An elective is a course students take to create a better rounded education. These elective credits also contribute to graduation requirements (3.5 minimum are needed to graduate high school). Elective courses are chosen *after* all required courses have been scheduled. Once required courses have been scheduled, electives can be chosen based on student's interest, and course availability. In order to take electives, students must meet all prerequisites.

Accelerated Graduation/Non-Traditional Study

Students who wish to complete their graduation requirements in less than four years must plan their program accordingly and have their program approved. ***Requests must be approved by the school counselor, high school principal and superintendent, prior to beginning of the school year.*** A contract must be issued by the school counseling office clearly defining requirements and bearing signatures of the student, parent/guardian(s) of the student, the school counselor, and the high school principal and superintendent.

General Program Information

Grading

The final average in a year-long course is determined by combining the four quarterly grades and final or Regents exams as 20% each. A half year course is determined by counting the two quarterly grades as 45% each and the final exam as 10%.

Progress Reports

Progress Reports are published at the 5th week of each 10-week marking period. Progress reports are posted to the parent portal for review. Contact the Counseling Office to request hard copy.

Report Cards

Report Cards are published approximately one week after the/close of marking period. Report cards are posted to the parent portal for review. Students are expected to pay for lost and damaged items before the final report card will be released to the portal. Contact the Counseling Office to request a hard copy.

Grade Point Average (GPA) Reported on Transcripts vs. Report Cards

A student's grade point average reported on his/her transcript is compiled of all the courses he/she has taken that are scored numerically **Grade Point Average (GPA) Reported on Transcripts vs. Report Card** and divided by the number of credits the courses are worth.

The **transcript** is the student's legal record and is what is sent to colleges, the military, and employers when requested. The transcript is an overall picture of academics for grades 9 through 12.

A **report card** is a snapshot taken each quarter/ten weeks indicating how a student is currently doing. A student's grade point average reported on his/her report card is compiled of the courses he/she is currently taking and are scored numerically and divided by the number of courses.

The **report card GPA** is used to determine Principal's List/Honor Roll, awards, and National Honor Society (NHS) nomination. The report card GPA looks at an individual quarter, semester or year in one snapshot that divides by the number of courses, not the number of credits.

Weighted Grades

Weighting courses encourages students to take a more rigorous course load.

AP courses are weighted at 1.05

College in the High School & Honors courses are weighted at 1.025

*see example below

Weighted GPA Calculation

In order to determine a student's grade point average (GPA), the course accrued will have a weighted grade status at the high school level. Weighting means that certain higher level courses will be multiplied by either 1.05 (for APs), 1.025 (for UHS and Honors courses), or 1.0 for Regents level courses.

Course Name	Grade	Credits	Weighted?	Possible Total Points
AP English 11	85	1.0	Y (1.05)	$85 \times 1.05 = 89.25$
CHS American History	80	1.0	Y (1.025)	$80 \times 1.025 = 82.00$
Algebra II	79	1.0	N (1.00)	$79 \times 1.00 = 79$
Regents Chemistry	81	1.0	N (1.00)	$81 \times 1.00 = 81$

HS PE	95	0.5	N (1.00)	$95 \times .05 = 47.50$
HS Health	93	0.5	N (1.00)	$93 \times .05 = 46.50$
UHS Principles of Business	89	1.0	Y (1.025)	$89 \times 1.025 = 91.23$
Spanish III	80	1.0	N (1.00)	$80 \times 1.00 = 80.00$
Forensics	89	1.0	N (1.00)	$89 \times 1.00 = 89$
Total		8.0		685.48 points
Weighted GPA = $685.48/8.0 = 85.69$				

General Program Information

High School Credit Earned in Junior High

DCS may grant credit to Junior High students who take high school courses in Junior High. These courses must have the same expectations, curriculum and final exams as the equivalent courses taught in the high school. The following DCS courses have been identified for high school credit:

- Algebra I
- Regents Living Environment
- Spanish 1A & 1B (equivalent to Spanish 1 in the HS)

Distance Learning

DL courses are another opportunity available at Duquesburg for students in grades 9-12. DL courses allow DCS to expand the course selection available for students. All teachers and students participating can see and hear each other via television screens and microphones. There are limited seats available in each DL course. All students participating must take the courses seriously and be on their best behavior. DL course availability and schedule is not completed until the end of the school year. Consequently, students will need to choose and sign up for alternatives for chosen DL courses in the event that courses are not offered or available where the students have room in their schedule. Students will be removed permanently from DL courses for poor behavior. Removal is at the discretion of the DL *host* teacher.

Course Registration and Scheduling

Registration procedures are as follows:

- The **Program of Studies Guide** is made available on-line. Hard copies are available from the school counseling office.
- Teachers make recommendations for students to advance to the next grade or level and for acceleration.
- Students meet with school counselors, and a sequence of courses best suited to their interests, goals, and strengths are chosen. Parents may call counselors to discuss their student's schedule before, during or after this step.
- Administration and the school counseling department design a master schedule
- Once courses are chosen and schedules are built, **ONLY NECESSARY CHANGES** are permitted.
- Students and their parents/guardians are advised to contact their counselor over the summer if schedule adjustments must be made. Summer appointments may be at a limited availability.

Independent Study

Students can request and work with a teacher to develop an Independent Study course in an area of interest and for which there is no course offered. Paperwork for submitting an Independent Study option is in the Counseling Office. Independent Study proposals must be submitted within the first five (5) days of school and receive the approval of the Principal.

Add/Drop Procedure

A course must be added within the first ten days of school. A course may be dropped within five weeks of the start of the course without penalty. After five weeks a course cannot be dropped without counselor, principal and parent approval. If a course is dropped at this time, there will be a W (withdrawal) indicated on the student's transcript. Course add/drop forms are available in the school counseling office.

Course Failure

If a student fails one or more subjects, he/she places future learning in jeopardy. Students must have a minimum overall grade of 55 to attend summer school. If a student cannot attend summer school, he/she will be required to repeat the failed course during the following school year. Failure of any major subject reduces the number of elective options and may result in the student not receiving the necessary credits towards graduation.

Special Education

Duanesburg School offers a continuum of Special Education services to all eligible students with specific disabilities. To qualify for a Special Education program or to access its services, a student must have an Individual Education Plan (IEP). The Student Service Team decides the best schedule based on the student's IEP. For more information, students and parents/guardians can contact their school counselor or the Special Education department directly.

Section 504

Section 504 of the Rehabilitation Act and the Americans with Disabilities Act, which specifies that no one with a disability can be excluded from participating in federally funded programs, or activities, including elementary, secondary or postsecondary schooling. "Disability" in this context refers to a "physical or mental impairment which substantially limits one or more major life activities." This can include physical impairments; illnesses or injuries; communicable diseases; chronic conditions like asthma, allergies and diabetes; and learning problems. A 504 plan spells out the modifications and accommodations that will be needed for these students to have an opportunity to perform at the same level as their peers, and might include such things as wheelchair ramps, blood sugar monitoring, an extra set of textbooks, a peanut-free lunch environment, home instruction, or a tape recorder or keyboard for taking notes.

Response to Intervention (RtI)

Response to Intervention (RtI) is a multi-tiered early prevention and intervention system designed to improve outcomes for all students. The district will provide multiple tiers of increasingly intensive levels of targeted intervention and instruction for those students who do not make satisfactory progress in their levels of performance and/or in their rate of learning to meet age or grade level standards. It is designed that the use of tiered level instruction will be specific to each student's needs and will be an ongoing process. Students will enter and exit tiers of intervention based on the analysis of student performance data and progress monitoring data.

Course Retakes

Students will be required to retake a course if an overall grade of a 54 or lower is earned. Students who fail a course are strongly encouraged to attend summer school for that course. If the course is not offered in summer school, the student should contact the school counseling office during the summer to adjust his/her schedule for the following school year. Upon approval of the teacher students may have the opportunity to "blend out" of a course that they have already fulfilled the required seat time for but have not passed. In order to do so, a student must:

1. Approach teacher and request the opportunity to "blend out" after completing the first semester for a second time.
2. Approach the school counselor to find out if "blending out" would be mathematically possible.
3. Ask the counselor to send the teacher the appropriate paperwork.
4. Students will not be allowed to withdraw from the class until grades are submitted and all necessary coursework is completed to the satisfaction of the instructor/teacher.

Please note that it is not possible to "blend out" of some courses and that even when possible, teachers have the right to refuse a request to "blend out."

Credit Recovery

Students who do not make adequate progress towards course completion may be allowed to earn credit back through Grad Point—an online learning management system. Students must have regular contact, guidance and direction from a certified teacher in the course they are recovering credit. Paperwork is available in the Counseling Office.

Junior High Course Requirements

Grade 7 and 8

- 2 units of English, Science, Math and Social Studies
- 1 unit of Technology
- .75 units of Family and Consumer Science (at DCS this meets the Career and Occupational Education requirement)
- .5 units of Physical Education per year
- .5 units of Health
- .5 units of Visual Arts
- .5 units of Music

Library and informational skills 1 period per week may be contained within another course. This course should be co-taught with a Library Media Specialist and the classroom teacher to integrate instruction.

- LOTE credit can be obtained in junior high to fulfill graduation requirement.
- Career Development and Occupational Education may be contained within another course (Family and Consumer Science)

Sample 7 th Grade Schedule			Sample 8 th Grade Schedule	
Period 1	Math 7 or Math 8		Period 1	Math 8 or ALG I
Period 2	Science 7 or Science 8		Period 2	Science 8 or Living Env.
Period 3	English 7		Period 3	English 8
Period 4	Social Studies 7		Period 4	Social Studies 8
	Lunch			Lunch
Period 5A	Tech/Art		Period 5A	Tech/Science Lab/Fam Con
Period 6	Music/PE		Period 6	Health/PE
Period 7	Spanish 1A		Period 7	Spanish 1B
Period 8	Fam Con/S.Hall/Band/Choir		Period 8	Band/Choir

*Band and Choir are Elective

RtI-Students scoring a level 1 or 2 on the State Assessments or who are experiencing difficulty in Math/English may be assigned to receive RtI services.

Regents Requirements

Regents Diploma	
*Students must earn the following course credits	
English	4
Social Studies	4
Science	3
Math	3
Health	.5
Arts/Music/Tech	1
LOTE	1
Physical Education	2
Electives	3.5
TOTAL CREDITS	22

Regents (through appeal)	
*Students must earn the following course credits	
English	4
Social Studies	4
Science	3
Math	3
Health	.5
Arts/Music/Tech	1
LOTE	1
Physical Education	2
Electives	3.5
TOTAL CREDITS	22

Testing Required for Graduation

5 required Regents exams with the score of **65 or better** on each exam:

- 1 Math
- 1 Science
- 1 Social Studies
- 1 ELA
- PLUS ONE additional assessment in:
 - Math
 - Science
 - Social Studies

OR 1 Department Approved CTE pathway

<http://www.p12.nysed.gov/ciai/multiple-pathways/docs/multiple-pathways-pathways-qa-2015-04-08.pdf>

Testing Required for Graduation

4 required Regents exams with a **65 or better** and 1 Regents exam with a score of **62-64** for which an appeal is granted by the local district per Commissioner's Regulation (100.5(d)(7)):

- 1 Math
- 1 Science
- 1 ELA
- 1 Social Studies
- PLUS ONE additional assessment in:
 - Math
 - Science
 - Social Studies

Or 1 Department Approved CTE pathway

<http://www.p12.nysed.gov/part100/pages/1005.html#regpasscore>

Regents Diploma w/ Honors

*Students must earn the following course credits

English	4
Social Studies	4
Science	3
Math	3
Health	.5
Arts/Music/Tech	1
LOTE	1
Physical Education	2
Electives	3.5
TOTAL CREDITS	22

Regents w/ Advanced Designation

*Students must earn the following course credits

English	4
Social Studies	4
Science	3
Math	3
Health	.5
Arts/Music/Tech	1
LOTE	1
Physical Education	2
Electives	3.5
TOTAL CREDITS	22

Testing Required for Graduation

5 required Regents exams with a computed average score of **90 or better** on each exam:

- 1 Math
- 1 Science
- 1 ELA
- 1 Social Studies
- PLUS ONE additional assessment in:
 - Math
 - Science
 - Social Studies

Or 1 Department Approved CTE pathway

<http://www.p12.nysed.gov/part100/pages/1005.html#diplomaHonors>

Testing Required for Graduation

8 required Regents exams with a score of **65 or better** on each exam:

- 3 Math
- 2 Science
- 1 ELA
- 2 Social Studies
- LOTE or 5 unit sequence in Arts or CTE

Regents Requirements

Regents w/ Advanced Designation Mastery in Math	
*Students must earn the following course credits	
English	4
Social Studies	4
Science	3
Math	3
Health	.5
Arts/Music/Tech	1
LOTE	1
Physical Education	2
Electives	3.5
TOTAL CREDITS	22

Regents w/ Advanced Designation Mastery in Science	
*Students must earn the following course credits	
English	4
Social Studies	4
Science	3
Math	3
Health	.5
Arts/Music/Tech	1
LOTE	1
Physical Education	2
Electives	3.5
TOTAL CREDITS	22

*In addition, a student must earn an additional 2 units of credit in LOTE or a 5 unit sequence in the Arts or CTE. These credits can be included in the 22 required credits.

Testing Required for Graduation

Meets all assessment requirements for the Regents with Advanced Designation (see above) and, in addition, scores **85 or better** on each of 3 Regents Examinations in Math.

<http://www.p12.nysed.gov/part100/pages/1005.html#regentsAD>

Testing Required for Graduation

Meets all assessment requirements for the Regents with Advanced Designation (see above) and, in addition, scores **85 or better** on each of 3 Regents Examinations in Science.

<http://www.p12.nysed.gov/part100/pages/1005.html#regentsAD>

Regents Requirements

Regents w/ Advanced Designation w/ Honors	
*Students must earn the following course credits	
English	4
Social Studies	4
Science	3
Math	3
Health	.5
Arts/Music/Tech	1
LOTE	1
Physical Education	2
Electives	3.5
TOTAL CREDITS	22

Testing Required for Graduation

8 required Regents exams with a computed average score of **90 or better** on each exam:

- 3 Math
- 2 Science
- 1 ELA
- 2 Social Studies
- LOTE with a score of 65 or a 5 unit sequence in Arts or CTE

<http://www.p12.nysed.gov/part100/pages/1005.html#diplomaHonors>

Local Diploma for Students with Disabilities	
*Students must earn the following course credits	
English	4
Social Studies	4
Science	3
Math	3
Health	.5
Arts/Music/Tech	1
LOTE	1
Physical Education	2
Electives	3.5
TOTAL CREDITS	22

Testing Required for Graduation

1. Low Pass Safety Net Option

5 required Regents exams with a **55 or better**

- i. 1 Math
- ii. 1 Science
- iii. 1 English
- iv. 1 Global History and Geography
- v. 1 US History and Government

2. RCT Safety Net Option

Passing score on corresponding RCT if student does not achieve a score of 55 or better on the Regents examination.

3. Compensatory Safety Net Option

Scores between 45-54 on one or more of the five required Regents exams, other than the ELA or math exam, but compensates the low score with a 65 or better on another required Regents exam. Note: a score of at least 55 must be earned on both the ELA and math exams. A score of 65 or higher on a single exam may not be used to compensate for more than one examination for which a score of 45-54 is earned.

<http://www.p12.nysed.gov/part100/pages/1005.html#assessment>

<http://www.p12.nysed.gov/specialed/publications/localdiplomas-may2011.htm>

Counseling Information

Independent Study

Provides students an opportunity to pursue topics of interest that are not part of the Program of Studies Guide. Working as a team, a teacher, a student and their parents/guardians will prepare an in-depth independent study proposal which must be submitted and approved by the building principal before any independent course can begin. Please see your counselor for more details.

Grad Point

An online learning program used to supplement classroom instruction, to provide for tutoring support when a student is out of school for an extended time and to provide a pathway for students to complete coursework for credit recovery purposes. The counseling center will work with teachers, students and parents/guardians to coordinate implementation of Grad Point options as identified needs arise.

Naviance

Naviance is a college and career readiness tool that helps students navigate through their high school and postsecondary plans. Students and parents will have access to the different portals available on Naviance. Registration codes for parents and students are available through the Counseling office.

Community Service Recognition

The Community Service program recognizes student commitment to their school and their community. Students must earn a minimum of 100 hours of community service to be eligible for this award. Students may begin accumulating service hours from the summer before they enter high school until May 1 of their senior year. Application forms are available to pick up from the Counseling Office.

Advanced Placement/UHS

DCS has numerous courses offering AP/UHS credit. Different courses have different application procedures. Presentations will be given in content classes offering advanced credit, explaining the application procedures. Students who wish to take any AP/UHS courses must meet the following requirements for each subject are;

- Obtain a teacher recommendation: forms will be available in the school counseling office and online in early spring. The due date will be posted on the form. Forms will also be provided at the time of presentations.
- Write a free response essay with teacher supervision. Dates will be provided to students.
- Have a 90% average for the first two marking periods in the content area (s) the student is interested in taking.
- Academic records will be reviewed at the end of the year. Students are expected to have an overall GPA of 85%.
- Departments will review academic records, letter of recommendation, and the essay for each student.
- Take the AP exam
- Pay the UHS/AP fee when applicable.
- A contingency plan may be put in place at the teacher's discretion in order to allow students who don't qualify for admission the chance to take the course.

All students interested in being in an AP/UHS courses must complete the application processes to even be considered for the course.

AP and UHS courses are also offered in other subject areas. Please refer to the course descriptions for application requirements.

The courses with a 1.025 multiplier are University in the High School courses. All AP courses will receive the 1.05 multiplier

College & Career Readiness

During each stage of high school, the school counseling office offers a variety of programs, evening events and field trips to enhance students' knowledge and provide information on careers and colleges. Events include but are not limited to: Junior HS Transition Night, Career & Technical Field Trips, Sophomore Information Day, Job Shadowing, Study Circles, SUNY Cobleskill College Fair, College Night for Juniors, College Night for Seniors, Instant College Admit Days, and Financial Aid Night.

Freshman Year: With the counselors students research careers, learn how to prepare and for jobs and create a resume. On Naviance, students fill out the Career Cluster Finder to help assess possible career interests.

Sophomore Year: Students have the option of taking the PSAT in October. In addition, sophomores work on updating their resumes, as well as completing the Career Interest Profiler on Naviance. Sophomores also have the option of visiting our CTE sites for possible hands-on career options for Junior and Senior year.

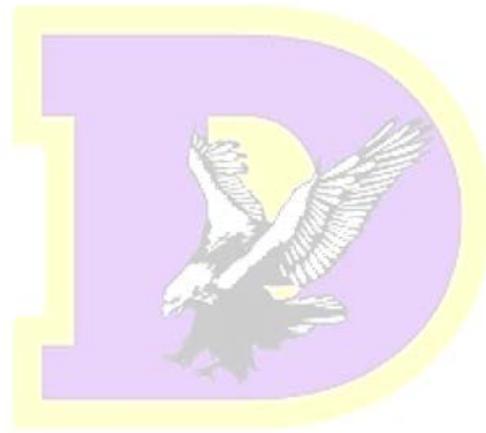
Junior Year: It is recommended for students to take the PSAT, the practice test for the SAT and possible qualify for the National Merit Scholarship. The test is comprised of Reading, Mathematics, and Writing. In the spring of students' junior year, it is recommended they take the SAT, which is offered at DCS, or the ACT, in preparation for the admission process to college. Students interested in taking any of these exams should contact the Counseling Center for the registration information. Juniors will attend the college caravan in the spring.

Senior Year: Seniors meet with their school counselor in the beginning of the year for their senior meeting, and then throughout the year on an as needed basis, to help complete college, job, or military application process. It is sometimes recommended that students applying to college take the SAT or ACT for a second time. Seniors can attend the SUNY Cobleskill college fair held each year in October.

Work/Internship Procedure

Students interested in leaving early or coming into school late to complete an internship or to work must have approval from the HS principal. Students must be passing all courses in which they are currently enrolled in order to participate in a work/internship opportunity and must have a positive attendance record. Written permission is needed from the parent/guardian and from the employer. Upon receipt of all documentation and administrative approval, guidance counselors will change the schedule and the student will be allowed to leave early or enter late for the purpose of work or an internship

Course Descriptions



ART COURSES

Art

Grade Level: 7-8

Students are required to complete ½ unit of study in Visual Arts. Students will explore a variety of 2D and 3D media while learning and incorporating the Elements of Art and the Principles of Design. There will be a focus on studying and investigating the work of contemporary artists and students will apply those ideas to his or her own work.

Studio Art

Grade Level: 9-12 **Credit:** 1 Unit **Prerequisite:** None

This class follows state and national standards for the arts. Students will explore different areas, such as drawing, painting, 3-D work with clay and plaster textile design, commercial art, and computer graphics. Course work will contain art criticism, art history, and multi-cultural references. A sketchbook is required.

Computer Graphics

Grade Level: 9-12 **Credit:** 1 Unit **Prerequisite:** None

This course will introduce students to raster (photo) and vector editing programs. Students will learn ADOBE PHOTOSHOP image editing software. They will focus on digital image capturing and editing including photo compositions, cameras, and scanners. Students will learn about color in the digital realm (RGB & CMYK), capturing, importing, retouching digital images, compositing digital photos, how to add a variety of digital effects, and how to prepare their work for web and print distribution. Students will learn basic vector art production which is used for logos, animation, and commercial print, used in advertising and design.

2-Dimensional Studio (2D)

Grade Level: 10-12 **Credit:** 1 Unit **Prerequisite:** Studio Art

This is an advanced studio class that will build on drawing and painting skills needed for further artistic development. There will be a focus on interpreting ideas and designs onto flat surfaces. Drawing, painting, printmaking, and life sized drawings will be among the projects covered. A sketchbook is required. Class size is limited to 15.

3-Dimensional Studio (3D)

Grade Level: 11-12 **Credit:** 1 Unit **Prerequisite:** Studio Art, 2D Art.

This course is an advanced level course that explores several 3-dimensional media. Projects will include clay, (both hand building and wheel throwing), tile making, miniature village making, mobiles, and many other different styles of sculpture. A sketchbook is required. Class size is limited to 15.

Industrial Design

Grade Level: 11-12 **Credit:** 1 Unit **Prerequisite:** Studio Art, 2D Drawing/Painting, 3D

This is an advanced course directed to the career of Industrial Design. It is a hands-on advanced sculpture, graphic design, and painting course designed to meet the needs of an industrial designer. Students will learn how to design and execute drawings to final products, and reconstruct ideas that have already been designed and make them more user friendly and modern looking. A sketchbook is required.

Senior Portfolio

Grade Level: 12 **Credit:** 1 Unit **Prerequisite:** 3 art electives must be successfully completed, along with teacher written recommendation.

Students will be required to pursue a concentration of their choice developing a thesis consisting of at least five art projects. This is for serious art students who are trying to develop a finished portfolio. Students taking Senior Portfolio are expected to have their own agenda for this course. Students should have a clear idea of what projects they would like to complete. All projects must be approved by the art teacher before the semester begins. The teacher will work with the students to develop successful art works, but the student must have the self-discipline and motivation to work independently. This class will allow students to have a complete portfolio as well as a group of slides and a CD-ROM portfolio to hand out to colleges. Students will complete a final artist statement that describes themselves and their art influences. Class size is limited to 10.

BUSINESS COURSES

The study of business courses will prepare students for college and/or careers, and prepare them for making informed decisions in life. Knowledge of computers, careers, accounting, insurance, law, investments, and marketing are a sampling of concepts covered that will better prepare students for their future. Business courses are offered as part of career clusters or may be taken as electives.

Keyboarding and Computer Applications

Grade Level: 9-12 **Credit:** 1/2 Unit **Prerequisite:** None

This new introductory course will help students build keyboarding and essential computer skills by creating a variety of real-world projects. These projects will help students apply what they learn and prepare to be productive immediately when beginning their careers. Students will create projects working individually and on teams publish ready similar to a work situation using a variety of software application programs. Skills important for job success such as teamwork, communication, organization, and problem solving will be utilized as well as gaining these important computer and technology skills.

Career and Financial Management (CFM)

(This replaces the combination of Succeeding in the World of Work and Managing Your Personal Finances.)

Grade Level: 10-12 **Credit:** ½ Unit **Prerequisite:** None

The Career and Financial Management course will enable students to explore a variety of careers and learn critical skills to be career and college ready after high school. Some of the career topics include: the changing workplace, decision making, setting lifestyle goals, researching and choosing a career to support goals, the job application, and workplace preparation including attitudes for success, ethics, and laws. Additionally students will explore independent financial management to learn to efficiently handle personal finance and consumption expenditures. Some primary focuses will include: taxes, paychecks, savings choices, time value of money, budgeting, credit, large purchases, personal reflection of values, needs, and wants; and setting financial goals to reflect individual desires. Students that plan on applying to the CEIP program in their senior year must take this course as a pre- or co-requisite (can be taken in grades 10-12). This course can also be taken as a “stand alone” for students who do not intend to apply to the CEIP program.

UHS Computer Applications

Grade Level: 11-12 **Credit:** 1 Unit **Prerequisite:** None

This is a real-world, project-based course that focuses on Microsoft Word, Excel, PowerPoint, and Access to help prepare students to work toward the Microsoft Applications Specialist Exams. Regular attendance is the best

predictor of success. Students work on projects with detailed instructions, teacher demonstrations, and video tutorials. The emphasis of study is to develop computer skills that are important for academic, personal, and job success. Units of study include office applications, Internet skills, research skills, computer ethics, and an introduction to desktop publishing.

**Students may be eligible for up to 6 college credits through the University in the High School Program.*

Math and Financial Applications

Grade Level: 9-12 **Credit:** 1 Unit **Prerequisite:** None

Offered: Every Other Year (2017-18)

This course is a specialized interdisciplinary business course related to the mathematical learning standards. The course is designed to prepare students for both college level business programs and to understand the financial world they will encounter during their lives. As a result of taking this course, students will be: knowledgeable on matters relating to the businesses that students will someday work for and/or possible own; capable of managing their finances including banking, investing, checking, income taxes and credit; more knowledgeable and have a greater understanding of the benefits and risks associated with home ownership; less likely to overextend their credit and become a victim of fraudulent financial practices; able to understand how to properly manage their taxes and understand the need for paying taxes to support the many public goods and services provided by the government; better prepared to handle personal and business management matters throughout their lives.

Introduction to Accounting

Grade Level: 9-12 **Credit:** 1 Unit **Prerequisite:** None

Offered: Every Other Year (2018-19)

This course encompasses the complete accounting cycle. The main focus is developing an understanding of the basic accounting principles, methods of recording transactions, and the preparation of financial statements. The course provides students with the ability to keep business records and provides understanding of the principles of financial transactions. Practice sets are used to give practical application of the accounting theory. This course is highly recommended for students pursuing a two-or four-year business program in college.

Principles of Marketing Development

Grade Level: 9-12 **Credit:** ½ Unit **Prerequisite:** None

In this course students are introduced to the important role that marketing plays in our economic system. We will look at the basic marketing functions that may be applied to a variety of retail or wholesale industry clusters including selling, advertising, and market research. Content revolves around the basic marketing function. Selling, promotion, pricing, purchasing, product, service, idea planning, and distribution is covered. Projects are developed to give students hands-on experience using these functions. When combined with other sequence options, Marketing will provide a broad background for any area within business exploration.

Sports & Entertainment Management

Grade Level: 11-12 **Credit:** ½ Unit **Prerequisite:** None/Recommend Principles of Marketing

This half-year course will introduce students to the field of Sport Management and Marketing. Topics examined will include: management principles, college and amateur sports, professional sports, organizing and staffing, leading in a changing environment, and managing operations, groups and teams. This course will provide student with an understanding of sports as a business and help prepare them for college-level business programs and introduce them to an area of business with which they may be unfamiliar.

Introduction to Business and Personal Law

Grade Level: 11-12 **Credit:** 1 Unit **Prerequisite:** None

This course emphasizes the relationship of business law to an individual's personal life and career. Business law is comprised of six areas; knowing about the law (criminal and tort law, the court system, and trial procedures), entering into contracts, being a consumer, getting a job, planning for the future, and looking toward later life. Students will explore issues that are key to developing the foundation necessary to become an informed consumer and productive member of society.

Business Communication

Grade Level: 11-12 **Credit:** 1 Unit **Prerequisite:** None

The primary goal of this course is to give students an opportunity to develop and practice their communication skills. This course provides the students with the principles of effective communication in business, both written and oral. We focus our attention on the communication process including effective listening, writing, and speaking. Topics include analysis of business letters, reports, and memos for organization of ideas, conciseness, and clarity. The course also requires writing business letters, memos and messages for electronic media, writing business reports, and an oral presentation. Writing resumes, applying, and interviewing for employment are also covered in this course.

Career Exploration Internship Program (CEIP)

Grade Level: 12 **Credit:** ½ or 1 Unit

Prerequisite (or co-requisite): Personal Finance and Succeeding in the World of Work (both ½ year courses) or Career and Financial Management (CFM). Permission may also be granted on an individual basis with the CEIP/WBL Coordinator.

This non-paid internship provides a link between school and career options through hands-on experiences in a variety of career choices. Whether students end up moving forward in their chosen career paths or not, all students learn many transferable skills for the future. Students must apply and once accepted into this program, they receive an individualized internship program that is developed specifically for them. Upon acceptance and assignment of the internship, students are required to complete at least 54 hours at the internship and 27 hours of classroom/independent instruction for ½ credit. CEIP is a ½ or 1 unit elective course open to ALL students in grade 12. Students who choose to enroll in this elective course are expected to demonstrate a level of responsibility and commitment appropriate for the workplace. Characteristics such as honesty, integrity, ethics, teamwork, and a positive attitude are expected. Applications to enroll in this program may be obtained from the CEIP/WBL Coordinator. Any work experience through the internship must be supervised by a mentor, which may include a family business. CEIP was developed cooperatively between the New York State Education Department and the New York State Department of Labor and is only possible due to the generosity of community members volunteering their time to become mentors.

ENGLISH COURSES

English 7 and English 8

Grade Level: 7th and 8th Grade

A reading and writing-intensive course designed to integrate basic grammar and vocabulary skills with higher-level critical analytical, comprehensive, and communication skills. Through daily practice, students will become able readers, writers, speakers, listeners, and creative thinkers.

English 9

Grade Level: 9th Grade **Credit:** 1 Unit **Prerequisite:** Successful completion of English 8

This course develops the reading, writing, and literature skills that students will need to meet the Common Core Learning Standards and the Regents. Heavy emphasis is placed on literary elements and the development of writing skills for Regents tasks. Major units of study include; short story, nonfiction, drama, William Shakespeare, the novel, poetry, and mythology. The main textbook, Elements of Literature-Third Course, provides much of the material with additional resources coming from novels and complementary texts.

English 10

Grade Level: 10th Grade **Credit:** 1 Unit **Prerequisite:** Successful completion of English 9.

This course introduces the 10th grade students to a variety of authors and genres with a concentration on writing and grammar. Each work of literature will culminate in a writing assignment based on the New York State Regents mandates. The text, Elements of Literature-Fourth Course, provides most of the material in drama, poetry, and short stories. Additional full-length works will supplement the fiction and nonfiction literature. Vocabulary is taken from the context of the literature and is aligned with Global History and Living Environment curriculums. Students participate in a few miniature research assignments before participating in a required research paper in conjunction with Global History.

Prerequisite: Successful completion of English 9.

English 11

Grade Level: 11th Grade **Credit:** 1 Unit **Prerequisite:** Successful completion of English 10.

This course develops the reading, writing and listening skills necessary for success on the New York State Common Core Regents in English. These skills are developed within the context of American literature. The course will instruct students on analyzing short non-fiction pieces and their application to the real world. The text, Elements of Literature-Fifth Course, in addition to providing historical context and author biography, also furnishes most of the shorter literary works: essays, drama, poems, and short stories. Text is supplemented by the study of major novels. The course provides preparation for the PSAT and SAT.

***AP English Language and Composition (AP English 11)**

Grade Level: 11 **Credit:** 1 Unit **Prerequisite:** Successful completion of English 10 with an overall average of 85% (as well as 85% on Final Exam) & obtain a teacher recommendation.

This is an intense course which prepares students to take both the English Comprehensive Regents exam in June and the Advanced Placement (AP) English Language and Composition exam in May. Students will regularly be reading two novels simultaneously, one in class and the other selected from an outside reading list. The AP English Language and Composition course is designed to help students become skills 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. By their writing and reading in this course, students should become aware of the interactions among a writer's purposes, audience expectations, and subjects, as well as the way generic conventions and the resources of language contribute to effective writing. Students are selected for the course based on English scores, an application essay, and teacher recommendation. A contingency plan may be put in place at the teacher's discretion in order to allow students who don't qualify for admission the chance to take the course. Students taking the course must take the mandated AP exam. The AP exam is the final exam in the course. The fee is \$93. The College Board has audited and approved this course.

Intro to Mass Media

Grade Level: 9-12 **Credit:** 1 Unit **Prerequisite:** none

This course will introduce students to news writing, reporting, journalism style, editing, headline writing, layout, and online journalism. The course will incorporate ethics and explore career choices in journalism. In addition to students viewing films and using the computer lab for the course, guest speakers will be visiting the classroom. Does not count as English 11 or English 12 credit.

English 12

Grade Level: 12th Grade **Credit:** 1 Unit **Prerequisite:** Successful completion of English 11.

This course will cover a variety of genres throughout the course of the school year. The goal of the course is to combine several of the previously offered senior electives into one comprehensive course. Students will examine several works of classic and contemporary literature. Students will incorporate writing for life after high school, creative writing, public speaking, and interview skills into the curriculum. There is also an emphasis on project based learning using 21st Century technology.

***AP English Literature and Composition (AP English 12)**

Grade Level: 12 **Credit:** 1 Unit **Prerequisite:** Successful completion of English 11 with overall average of 85% (and 85% on English Regents) & obtain a teacher recommendation.

This course involves intensive reading, writing, and literary analysis at the collegiate level. Reading selections are of recognized literary merit, including both fiction and critical work. Students will read one work of literary merit in addition to class work and write an essay upon that reading. The course will include ample AP Exam review and preparation. Students are selected for the course based on English scores, an application essay, and teacher recommendation. A contingency plan may be put in place at the teacher's discretion in order to allow students who don't qualify for admission the chance to take the course. Class size is limited to 15. Students taking the course must take the mandated AP exam. The exam fee is \$93. The College Board has audited and approved this course.

UHS English 12

Prerequisite: a grade of 75 or higher on the 11th Grade Common Core English Regents Exam.

UHS 123 and 124 are two separate college-level English courses taught by a local instructor through SCCC. The student who enrolls in 123 (fall) will also take 124 (spring) unless extenuating circumstances prevent him/her from doing so.

English 123: College Composition

This course provides a foundation in academic discourse by developing effective communication skills with an emphasis on expository and persuasive writing; considerable oral presentation and reflection are required.

English 124: Literature and Composition

This course encourages students to use writing to explore the ways in which literature functions as an art form. Writing and research techniques introduced in ENG 123—College Composition—are strengthened and refined. These courses equate with three (3) college credits received from Schenectady County Community College. These credits transfer to any institution that accepts SUNY credits

RTI for Literacy Skills

Grade Level: 9-12 **Credit:** 0

This course will help students to improve reading, writing, listening, and speaking skills. The course will target students' vocabulary, comprehension of content, grammar, sentence structure, ability to construct paragraphs, essays, and, when applicable, reports. Research skills may be incorporated if necessary.

*Scheduled on a rotating basis

FAMILY & CONSUMER SCIENCE COURSES

Family and Consumer Science

Grade Level: 7-8

Educational discipline where academics merge with real life. This course introduces all students to the application of the process skills of communication, leadership, management, and thinking skills. This course is based on the understanding that the ability to reason, to think critically and creatively, and to reflect on one's actions will empower students to act responsibly towards themselves, their families, their peers and society. Class size is limited to 24.

Food and Nutrition

Grade Level: 9-12 **Credit:** ½ Unit **Prerequisite:** None

This course covers the following performance objectives: beginning food preparation, meal management/food purchasing, meal service, nutritional awareness, food preparation and careers in Food and Nutrition. A great amount of time is spent in the kitchen experimenting with cooking and baking. Students will have the opportunity to plan, prepare, serve, and evaluate a wide variety of foods. Students should be open to experiencing new foods. Students with diet restrictions must speak with the teacher. Class size is limited to 20.

Gourmet Foods

Grade Level: 9-12 **Credit:** ½ Unit **Prerequisite:** Food & Nutrition

This course is an in-depth study of food and its preparation. Students will learn about advanced preparation techniques, the importance of food appearance and presentation, and the use of specialized equipment. This is a laboratory course. Students will plan and prepare at least one food item from each course of a seven-course meal. Examples; appetizers, soups, salads, entrees, breads, desserts, and beverages. Careers related to food photography, food journalism, and food styling will be discussed. Students should be open to experiencing new foods. Students with diet restrictions must speak with the teacher. Class size is limited to 20.

Clothing and Textiles

Grade Level: 9-12 **Credit:** ½ Unit **Prerequisite:** None

Emphasis is placed on learning how to construct a garment, recycle a wardrobe, and alter garments and repair/mend garments. This course teaches students the appreciation of the history of fashions and the relationship to art movements; why people wear certain styles of clothing; the elements of design; study of fabrics; sewing equipment (care and use); study of man-made garments and clothing businesses; clothing and textile careers. Students will complete two projects; one from a pattern and one creative project, which are discussed further in class. Class size is limited to 20.

Interior Decorating

Grade Level: 9-12 **Credit:** ½ Unit **Prerequisite:** None

Interior Decorating will allow students to utilize principles and elements of design to home furnishings. Interior Decorating is designed to teach students how to work with materials in the home. Each module will provide students with an opportunity to develop an understanding of the techniques necessary to create a project in that category. Careers will be discussed relating to interior design. Class size is limited to 20.

Parenting

Grade Level: 9-12 **Credit:** ½ Unit **Prerequisite:** None

The purpose of this course is to empower students to knowledgeably explore and define their personal values concerning parenting and to become knowledgeable of the responsibilities of becoming a parent. Most students will one day become parents by choice or chance. This course is designed to empower students with essential knowledge of the economic, social, educational, and physical impacts of parenting. Students will recognize that parenting requires adjustments in lifestyle and careers. Students will become aware of the stages of child development and the specific demands of each stage of development. Class size is limited to 20.

Independent Living:

Grade Level: 9-12 **Credit:** ½ Unit **Prerequisite:** None

The Independent Living course is designed to prepare students for the realities and responsibilities of managing all aspects of adulthood: education, career, interpersonal relationships, civic involvement, and financial security. Students will need the ability to make knowledge-based decisions as they learn to navigate the demands of the 21st century. For example, advances in technology provide consumers with almost limitless choices, but along with this wide array of choice comes an increasing need for significant knowledge and self-discipline. Financial transactions that can be made instantaneously can have long-ranging effects, both positive and negative. Personal and professional communications that can be shared worldwide with one keystroke need to be thoughtfully developed and distributed. In short, defining one's lifestyle goals and developing a plan to attain them is the core of this course. Class size is limited to 20.

HEALTH & PHYSICAL EDUCATION COURSES

Health 8

Students will gain knowledge and skills necessary to make informed choices about current major health concerns identified by the Center for Disease Control and Prevention. The following topics are included in the curriculum; personal health & wellness, mental & emotional health, healthy eating, physical activity, safety, sexual health, violence prevention, and a drug-free lifestyle. Students will gain the necessary knowledge and skills through a variety of instructional methods that are interactive and relevant to students' lives. The New York State Education Department requires all students to receive two half-year courses of health education. This is the first of two courses required by the New York State Department of Education. The second course will be offered in high school.

HS Health

Grade Level: 9-12 **Credit:** ½ Unit

This class is a realistic view of ongoing issues in Health Education to best prepare the students for health issues they may face later in life. This class places strong emphasis on promoting health lifestyles through various health topics. Students will gain knowledge through a variety of learning styles such as projects, posters, individual and group presentations, lectures, class discussions, videos, and guided research. Students will be made aware of choices they will have to make regarding their health and safety. Topics that will be covered are; physics, mental/emotional and social health, communication skills, bullying, stress, goal setting, time management, substance use and abuse, smoking and other forms or tobacco, sexuality, parenting, unintentional/intentional injuries and diseases, personal hygiene, fitness, nutrition, and basic first aid skills. This class complies with both New York State and National Health Education Standards and is required for graduation.

Life in the E.R

Grade Level: 10-12 **Credit:** 1 Unit

This course will show what life would be like working in a medical profession. Students will be made aware of the pressures of the field along with gaining better insight on whether or not the field is something they want to pursue further. They will be given an honest perspective on what they would need to accomplish in preparation for these kinds of professions including the needed education, college programs available and testing certifications. In learning what the job description entails, some of the top needed skills will be discussed, along with which personalities work best for each position. Students will research what the daily working conditions would be like, along with job characteristics. Annual job earning and annual job openings will be explored. Students will learn which jobs are up and coming in growth, as well as jobs that are dying out, and to prepare them for the future. After learning the education requirements for the careers and getting an overview of job expectations, local members of the medical profession will be invited to come to Duanesburg to share their experiences with the students. Students will be encouraged to ask questions to get a better insight of whether or not that is the profession they would like to study. Students will also be required to do a research on current events occurring in that profession and

have classroom discussion on what they have learned. Field trips will take place so students may have an opportunity to see what their potential place of employment might look like. Potential one-day internships may also occur depending on availability of willing professionals

JR HS Physical Education

Students are required to take .5 unit of study in Physical Education each year. Classes meet every other day. Students will have the knowledge and skills to maintain physical fitness, participate in physical activity, and maintain personal health. The mission of Physical Education is to empower all students to sustain regular, lifelong physical activity as a foundation for a healthy, productive and fulfilling life. This is a sequential educational program. It is based on individual and team physical activities undertaken in an active, supportive, and non-threatening atmosphere in which every student is challenged and given the opportunity to succeed.

HS Physical Education

Grade Level: 9-12 **Credit:** ½ Unit

Physical Education is a NYS mandated class that each students must pass each year that they attend middle and high school. PE classes meet every other day. Students will acquire the knowledge and skills to maintain physical fitness, participate in physical activity, and maintain personal health.

Couch To 5K

Grade Level: 9-12 **Credits:** ½ Unit **Prerequisite:** None

Ease into running gradually. This course will ease students into the lifetime activity of running gradually. This course will be less of a running regimen and more of a walking and jogging program. The idea is to help transform students from couch potato to runner, getting to running three miles (or 5K) on a regular basis in just 20 weeks. Participants will alternate walking and jogging gradually increasing the amount of time spent jogging while reducing the amount of walking time. Upon completion of the program, students will be ready to run a 5K race. Through the course the class will be encouraged to participate in two 5KS in their community. The class will take place in the gymnasium and through the use of walking/jogging routes on and off campus. Routes will vary from 1 to 3 miles in radius from campus. The instructor will be with the students at all times. Students are required to go on all routes and will not be allowed to stay behind on campus when they are not dressed in PE clothes. Other forms of aerobic exercise will be used on campus to improve student's cardiovascular fitness level. These activities may include: interval training, circuit training, yoga, Pilates. Other activities may be added as determined by the instructor.

The League

Grade Level: 9-12 **Credits:** ½ Unit **Prerequisite:** None

This class will meet every other day in the classroom and the gym. The League is for the student that enjoys high school sports. During this class you will learn the inner workings of how a WAC league is conducted. In the classroom you will assume the role of coach, athletic director, schedule maker and league representative. The units will be in team sports and individual sports. The class will learn about seeding and all-star selection process. This class will give you a thorough understanding of high school athletics as well as feed your competitive side in the gym. At the end of each unit back in the classroom for the understanding and implementation of end of season formalities.

Yoga

Grade Level: 9-12 **Credits:** 0.5 **Prerequisite:** None

Students will explore yoga fundamentals including poses, breathing and meditation techniques, and yoga history & philosophy. Students will also have an opportunity to develop their mindfulness practice more fully and learn different techniques for incorporating healthy habits into their daily lives.

LANGUAGE OTHER THAN ENGLISH COURSES

To earn a New York State High School diploma, students must earn at least one credit of HS foreign language. This can be done either by passing the local comprehensive exam at the end of checkpoint A in 7th and 8th grade language, or by passing a year of HS language course. Many colleges require a 2, 3 or 4 year language sequence.

Spanish 1A

Grade Level: 7th grade

The focus of the first year of LOTE is to begin communicating in Spanish. A special emphasis is placed on learning the basic vocabulary and structures that lead to proficient communication. Some of the topics covered are; how to describe yourself, classes at school, activities in and out of school, home and family, food and restaurants. Successful completion of level 1A is necessary to continue to Level 1B.

Spanish 1B

Grade Level: 8th grade **Prerequisite:** Spanish 1A

Students are expected to be able to carry on a simple conversation in the Spanish Language. More complex vocabulary and sentence structure will be mastered through oral and written exercises. Subjects covered in this level are doctors, illnesses, sports, summer and winter activities. Upon successful completion of a Comprehensive Final Examination, students will earn one high school credit-this will fulfill the LOTE minimum requirement for high school graduation.

Spanish I

Grade Level: 9-12 **Credit:** 1 Unit **Prerequisite:** None

The basic objectives are first to help each student attain an acceptable degree of proficiency in the four skills of listening, speaking, reading and writing, and second, to present the language within the context of the contemporary Spanish-speaking world and its culture. This course is for students who did not receive credit for Spanish 1B (8th grade), or for those in 9th grade who came from another district. This is a review of Spanish 1A and Spanish 1B. After successfully completing Spanish 1, students earn one high school credit.

Spanish II

Grade Level: 9-12 **Credit:** 1 Unit **Prerequisite:** Spanish I or Spanish 1B

Presents a more complex structure of basic Spanish and expands the cultural themes of the first level. By the time students complete Spanish II, they will have acquired a command of the key vocabulary and structure necessary for personal communications as well as an appreciation of the breadth and variety of the Spanish-speaking world. For students who successfully completed Spanish 1B or Spanish 1. After successfully completing Spanish II, students will have earned two Foreign Language credits.

***UHS Spanish III**

Grade Level: 10-12 **Credit:** 1 Unit **Prerequisite:** overall average of 75% in Spanish II

This class provides students with opportunities to review, deepen their understanding of Spanish as they sharpen their communication and comprehension skills, and enrich their vocabulary through realistic dialogues and a variety of activities. At the completion of this year, students will take a comprehensive exam. This class is for students who successfully completed Spanish 2. After successfully completing Spanish 3, students will have earned three Foreign Language credits.

***UHS Spanish IV**

Grade Level: 11-12 **Credit:** 1/2 Unit **Prerequisite:** Successful completion of Spanish III, a B average.

Spanish 4 is for students who have completed three years of high school Spanish. This course reinforces fundamental Spanish skills through a variety of reading, writing, listening, and oral exercises. The course also expands students' knowledge of the civilizations, cultures and customs of Spanish speaking people. Students will be exposed to the works of contemporary writers of the Spanish-speaking world. Spanish will be the language of instruction and students are expected to participate actively.

***UHS Spanish V**

Grade Level: 11-12 **Credit:** 1/2 Unit **Prerequisite:** Successful completion of Spanish IV

UHS Spanish 5 is for those students who have completed four years of high school Spanish. This course develops intermediate Spanish skills through a variety of reading, writing, listening, and oral exercises. Additionally, it further expands students' knowledge of the cultures and customs of the contemporary Spanish –speaking world. Spanish will be the language of instruction and students are expected to participate actively. They will be assigned compositions and videos to be viewed outside of class. There will be an emphasis on readings, short compositions, and class discussions. Cultural topics include Hispanics in the United States, habits and dependencies, personal freedom, work and leisure. Students who successfully complete Spanish 3, 4 and 5 with a C or better, and who pay tuition to Schenectady County Community College will earn 3 semester credits per class, transferable to all SUNY schools and many other colleges.

MATH COURSES

Math 7

Grade Level: 7th Grade

This course follows the 7th grade NYS CCLS Modules. At the end of the year, there is a final project that counts for 20% of the final grade.

Math 8

Grade Level: 8th Grade

Students will build on concepts presented the previous year. These concepts are Algebra and Geometry. The goal is to prepare the 8th grade students for the Algebra class they will encounter their first year of high school.

Algebra I (Common Core)

Grade Level: 9-10 **Credit:** 1 Unit

This is the first of a three-year sequence which includes Algebra I, Geometry, and Algebra II. Algebra I will develop study skills and processes to be applied using a variety of techniques to solve problems in a variety of settings in accordance with the CCLS and PARCC. Topics will include linear equations, quadratic and exponential functions, system of equations, graphing, coordinate geometry, and data analysis. Students are required to take the Algebra I Regents exam in June.

Non- Regents Geometry (Common Core)

Grade Level: 9-11 **Credit:** 1 Unit **Prerequisite:** Successful completion of Common Core Algebra (including passing the Regents exam), **teacher permission.**

This is the second year in a sequential math program. It is built around five process strands: problem solving, reasoning and proof, communication, connections, and representation as well as five content strands: number sense and operations, Algebra, Geometry, measurement, and statistics and probability. Topics covered include congruence, similarity, right triangles, Trigonometry, circles, expressing geometric properties with equations, and

geometric measurement and dimensions. An in-class final exam is given at the end of the year. No Regents credit will be earned.

Geometry (Common Core)

Grade Level: 9-11 **Credit:** 1 Unit **Prerequisite:** Successful completion of Common Core Algebra (including passing the Regents exam).

This is the second year in a sequential math program. It is built around five process strands: problem solving, reasoning and proof, communication, connections, and representation as well as five content strands: number sense and operations, Algebra, Geometry, measurement, and statistics and probability. Topics covered include congruence, similarity, right triangles, Trigonometry, circles, expressing geometric properties with equations, and geometric measurement and dimensions. Students are required to take the Common Core Regents exam.

Math and Financial Applications

Grade Level: 9-12 **Credit:** 1 Unit **Prerequisite:** None

This course is a specialized interdisciplinary business course related to the mathematical learning standards. The course is designed to prepare students for both college level business programs and to understand the financial world they will encounter during their lives. As a result of taking this course, students will be: knowledgeable on matters relating to the businesses that students will someday work for and/or possible own; capable of managing their finances including banking, investing, checking, income taxes and credit; more knowledgeable and have a greater understanding of the benefits and risks associated with home ownership; less likely to overextend their credit and become a victim of fraudulent financial practices; able to understand how to properly manage their taxes and understand the need for paying taxes to support the many public goods and services provided by the government; better prepared to handle personal and business management matters throughout their lives.

Algebra II (Common Core)

Grade Level: 10-12 **Credits:** 1 Unit **Prerequisite:** Successful completion of Geometry and passing the Regents exam with a 65 or higher.

This is the third year in the sequential math program. It is built around five process strands: problem solving, reasoning and proof, communication, connections, and representation as well as five content strands: number sense and operations, Algebra, Geometry, measurement, and statistics and probability. Topics include linear, quadratic, polynomial, exponential, logarithmic, rational and radical functions and relations, discrete mathematics (sequences and series, probability and statistics) and trigonometry. Students are required to take the Algebra II Regents in June.

***UHS Pre-Calculus**

Grade Level: 11-12 **Credits:** 1 Unit **Prerequisite:** Successful completion of Common Core Algebra II and passing the Regents exam with a 65% or higher.

This is a course for the preparation of Calculus. Topics include (as time permits); functions (polynomial, exponential, logarithmic, and trigonometric), continuity, limits, inequalities, linear programming, matrix algebra, sigma notation, advanced algebra, Euclidean geometry, the conic sections, and polar coordinates. Some special topics include the use of graphic calculators and advanced problem solving.

***UHS Calculus**

Grade Level: 12 **Credits:** 1 Unit **Prerequisite:** Successful completion of Precalculus and passing the final exam.

This class is comparable to a first semester calculus course for mathematics and science majors. Some topics included are limits, differentiation and its application, integration and its application, logarithms and exponential functions, inverse trigonometric functions, and hyperbolic functions.

Math 12

Grade Level: 12 **Credits:** 1 Unit **Prerequisite:** Senior status

This is a fourth-year course designed to review and continue practicing mathematical skills. The course will include topics such as straight lines and linear functions, systems of linear equations and inequalities, matrices, mathematics of finance, sequences and series, probability, real numbers, area, perimeter, volume, and surface area of geometric figures, solving equations, graphing functions, basic differentiation.

Students should have a scientific calculator.

MUSIC COURSES

JR HS Band

Grade Level: 7-8

Musical styles include; march, pop, classical transcriptions, novelty, holiday, solo, and contest. All standard band instruments plus electric/acoustic bass and piano/keyboard are welcome. Lessons are given in small groups during study halls or on a rotating basis depending on the student's schedule once every four days. Grades are based on performances, rehearsals, lesson book progression, and scales throughout the school year. Beginners are welcome.

JR HS Choir

Grade Level: 7-8

Provides a variety of singing opportunities for students with limited formal choral experience. It is an introduction to vocal music at the JR High level and a preparatory experience for the performing choirs at Duaneburg. Vocal techniques and music reading are emphasized and students are given the opportunity to explore various musical sources and styles. Much emphasis is placed on providing a positive musical experience to students through classroom and concert performance. There are two concerts each school year, one in December and one in May.

General Music

Grade Level: 7-8

10 weeks-Required to complete .5 units of study in music.

HS Band

Grade Level: 9-12 **Credit:** ½ Unit **Prerequisite:** None

Musical styles include march, pop, classical transcriptions, novelty, solo and contest. All standard band instruments plus electric/acoustic bass and keyboard are welcome. Lessons are given in small groups on a rotating basis once every 4 days during a regularly scheduled class or during study hall. Grades are based on performances, rehearsals and lessons throughout the school year.

HS Choir

Grade Level: 9-12 **Credit:** ½ Unit **Prerequisite:** None

Students will learn vocal production as well as proper posture and breathing exercises to improve their signing. Several different styles of four-part music will be introduced. Examples of music performed would include a medley of songs from a musical to the baroque style piece from Handel's Messiah; "Hallelujah Chorus". This is a performance class. Each rehearsal is a preparation for a concert performance, therefore, participation at each rehearsal is required as well as attendance at the winter and spring concerts. Students' grades will be greatly affected by illegal absenteeism from one or more concerts.

Select Choir

Grade Level: 9-12 **Credit:** ½ Unit **Prerequisite:** Must audition.

This *performance* organization provides instruction for intermediate and advanced choir students. It consists of approximately 26 students who are auditioned from the High School Choir. Various styles of music will be sung from the classical to contemporary pop music. Movement and dance will be incorporated. Select Choir members must be in High School Choir and will be performing additional performances beyond the two scheduled concerts. Participation at these events is mandatory.

Theater

Grade Level: 9-12 **Credit:** ½ or 1 Unit **Prerequisite:** None

Students will create and perform theater pieces as well as improvisational drama. They will understand and use basic elements of theater in their characterizations, improvisation, and playwriting. Students will engage in individual and group theater related tasks, describe various roles and means of creating, performing and producing theater.

Music Theory

Grade Level: 9-12 **Credit:** 1 Unit **Prerequisite:** Some music knowledge

This course is designed for students interested in attending a music college. Ear training includes sight singing, melodic, rhythmic and harmonic recognition. Construction of major and minor scales and chords will also be taught. Students will be introduced to music history from The Renaissance to present day. During the year they will compose several pieces of music in different styles with increasing levels of difficulty.

Beginning Guitar

Grade Level: 9-12 **Credit:** ½ or 1 Unit **Prerequisite:**

This one-year course is designed for students with no previous guitar experience. Students will receive guidance and direction in solving problems related to playing the guitar at a beginning level and will learn many of the different styles, skills, and techniques required to become a successful guitarist. Areas of concentration include: correct posture, note reading, aural skills, flat-picking, accompanying songs, rhythmic patterns, chord study, and finger picking styles, musical forms, and improvisation and performing experiences.

SCIENCE COURSES

Science 7

Students will cover major branches of life science: cell physiology, microbiology, botany, zoology, human physiology, genetics, and ecology. The course is designed to nurture a greater awareness and appreciation of science through the excitement of first hand discovery, while integrating science skills, problem solving skills and study skills within the content and standards. Special attention will be given to lab skills and processing skills. It should be noted that the seventh graders will be taking the state exam at the end of their eighth grade year. Project based learning will be used throughout the year. Grades are achieved through points earned on assignments, class participation, tests, quizzes, and projects. Grades are calculated on a total point basis. Textbooks focus on listening skills, note taking, and organization. The books come with a CD version and can be accessed on-line.

Science 8

Students will cover major branches of physical science. Topics would include chemistry basics, physics basics, scientific method, careers in science, and technology. The course is designed to nurture a greater awareness and appreciation of science through the excitement of first hand discovery, while integrating science skills, problem solving skills and study skills within the content and standards. It should be noted that students will be taking a

state exam in two parts this year. The first part is the performance portion to be scheduled in May, the written portion is after the performance portion in early June.

Living Environment

Grade Level: 8-12 Credit: 1 Unit

This course builds on Standards 1 and 4 of the New York State Learning Standards for Mathematics, Science and Technology, which emphasizes science inquiry and learning biological concepts that include the similarity and diversity of life forms, molecular genetics, evolution, reproduction and development, biochemical processes, ecology including energy relationships, and human activities affecting the environment. As a prerequisite for admission to the Regents exam, students must have successfully completed 1200 minutes of laboratory experience with satisfactory written reports for each laboratory investigation. All students enrolled in Living Environment must be concurrently registered for Living Environment lab. Lab is an additional class above and beyond the Living Environment class.

Physical Setting/Earth Science

Grade Level: 9-12 Credit: 1 Unit Prerequisite: Successful completion of Living Environment or Administrator's permission.

This course addresses the content and process skills as applied to the rigor and relevancy to be assessed by the Regents exam in Physical Setting/Earth Science. Focus will include understanding and demonstration of important relationships, processes, mechanism, and applications of Earth Science concepts. Students will be able to demonstrate those explanations in their own words, exhibiting creative problem solving, reasoning, and informed decision making. All students enrolled in Earth Science must be concurrently enrolled in Earth Science lab. Lab is an additional class above and beyond the Earth Science class. Critical to understanding science concepts is the use of scientific inquiry to develop explanations of natural phenomena. As a prerequisite for the admission to the Regents exam, students must have successfully complete 1200 minutes of laboratory experience with satisfactory written reports for each laboratory investigation. Prior to the written portion of the Regents exam, students will be required to complete a laboratory performance test.

Physical Setting/Chemistry

Grade Level: 10-12 Credit: 1 Unit Prerequisite: Successful completion of Algebra I, Living Environment and Earth Science *OR* teacher approval.

This course is the study of composition, structure and properties of matter, the changes which matter undergoes, and the energy involved in such changes. Topics include; subatomic particles, atomic structure, the Periodic Table, bonding, chemical formulas, nomenclature, chemical reactions, stoichiometry, acids/bases, electrochemistry, radioactivity, and organic chemistry. As a prerequisite for admission to the Regents exam, students must have successfully completed 1200 minutes of laboratory experience with satisfactory written reports for each laboratory investigation. All students enrolled in the Chemistry course must be concurrently enrolled in Chemistry lab. Lab is an additional class above and beyond the Chemistry class.

Contemporary Issues in Science:

Grade Level: 10-12 Credit: 1 Prerequisite: Living Environment

The emphasis will be on real world applications and the impact of current issues in science on daily life. We will explore from the lens of the Democratic and Republican Party's Platforms and discuss how politics affects the scientific community and our natural world. Topics that may be explored include: global warming, acid rain, pollution, natural resources, agriculture, and medicine. There is no separate lab.

Physical Setting/Physics

Grade Level: 11-12 Credit: 1 Unit Prerequisite: Successful completion of Algebra I (recommended minimum grade of 80), Living Environment, Earth Science and Chemistry OR teacher approval.

This course involves the study of matter and energy. Topics include: linear motion, forces, vectors, projectiles, gravitation, uniform circular motion, momentum, energy, electrostatics, DC circuits, wave theory, & atomic and nuclear theories. There is a lab requirement. This course is required or recommended for many fields of continuing education. As a prerequisite for admission to the Regents exam, students must have successfully completed 1200 minutes of laboratory experience with satisfactory written reports for each laboratory investigation. All students enrolled in the Physics course must be concurrently enrolled in Physics lab. Lab is an additional class above and beyond the Physics class.

Forensics Science

Grade Level: 11-12 Credit: 1 Unit Prerequisite: Successful completion of two years of high school science including Living Environment.

This is a full-year course which incorporates math, biology, chemistry, physics, and writing skills to frequently solve mysteries. Forensic Science will include hands-on activities, labs, interactive computer activities, other readings, worksheets, and PowerPoint Presentations on topics including; trace evidence including hair, fiber and pollen; time of death determination using insects and rigor mortis; blood typing and spatter analysis; DNA fingerprinting analysis; impression evidence including fingerprint, foot, dental, tire and tool, bone analysis and osteobiography; ballistics; glass analysis and more.

*** UHS Environmental Science**

Grade Level: 11-12 Credit: 1 Unit Prerequisite: Successful completion of Algebra I, Living Environment and Earth Science OR teacher approval.

This course introduces students to environmental concepts and issues from an interdisciplinary approach. Environmental issues and controversies will be explored from ecological, biological, social, economic, ethical, and governmental policy positions. Students will gain an understanding of the basic scientific method, tools, and techniques needed to understand and analyze environmental issues such as population growth, resource depletion, industrial and municipal pollution (air, water & trash), climate change, alternative energy and sustainability. Students are required to make several field trips to environmental sites as part of this course and will complete a project dealing with a current local environmental issue.

SOCIAL STUDIES COURSES

Social Studies 7

Grade Level: 7th Grade

This is the first year of the Jr. High American History course for 7th and 8th grades. Students will examine key events and explore the effects these events have on everyday life and people. The year will begin with a review of geography: location, place, interaction, movement, and region. Units of study will include Native Americans, Exploration and Colonization, War of Independence, the New Nation, the US Constitution, Manifest Destiny, and the Civil War.

Social Studies 8

Grade Level: 8th Grade

Eighth grade Social Studies is a focus on American History and is the second year in a two-year curriculum on US History and Geography. Students will learn about the time period beginning after the American Civil War and continuing through modern times. There is an increased emphasis on writing and the development of critical

thinking skills, including work with document-based questions (DBQs) and essays. A variety of media are used in the classroom such as historical documents, video, and artifacts.

Regents Global History and Geography 9

Grade Level: 9 **Credit:** 1 Unit **Prerequisite:** None

This course is the first part of a two-part course designed to show students common themes that recur across time and place over historical eras. Themes include cultural diffusion, migrations, regional empires, belief systems, trade and conflict. The curriculum provides students with the opportunity to explore what is happening in various regions and civilizations in the world at a given time. Students will also develop social science skills by working with a variety of historical documents. In addition, the course enables them to investigate issues and themes from multiple perspectives and makes global connections and linkages that lead to in-depth understanding. There is a school exam in June.

Regents Global History and Geography 10

Grade Level: 10 **Credit:** 1 Unit **Prerequisite:** Successful completion of Global 9

As an extension of Global History 9, this course continues to examine the progression of events and ideas that have shaped the modern world. The course begins approximately 1700 AD, and concludes with an examination of contemporary issues such as globalization, hunger, population growth, the environment, and the impact of science and technology. The culmination of the two-year Global History sequence is the administration of the Global History and Geography Regents examination to all students in June. Achievement of New York State established levels of competence on the exam is a high school graduation requirement.

Advanced Placement World History

Grade Level: 10 **Credit:** 1 **Prerequisite:** Teacher recommendation, summer assignment, overall end of the year GPA of 85% or better in Global 9 and an 85% or better on the grade 9 Global Studies final exam.

This is a year-long course that covers the history of humanity from its earliest origins to the modern day. Students will be expected to fulfill the requirements of the Regents syllabus in World History in addition to taking the AP exam in World History administered by the College Board (fee). Major areas of study will include the interaction of human groups across time through trade, war, and climate shifts. Particular attention will be paid to the development of major world religions and gender roles that developed in various societies. Students are required to take the AP exam and are responsible for the payment of the examination fee. The exam will be held in May. After the AP exam, students will use the final month of the school year to prepare for the New York State Regents examination in World History and Geography.

Regents U.S. History and Government

Grade Level: 11 **Credit:** 1 Unit **Prerequisite:** Successful completion of Global 10 or AP World History

United States History is a narrative of a great experiment in representative democracy. The basic principles and core values expressed in the Declaration of Independence and the United States Constitution became the guiding ideals for the nation's civic values. The curriculum is organized into units that examine the political, social, economic, and cultural heritage of the United States. Students will be expected to read and analyze historical documents and write document-based essays/thematic essays during the year in preparation for the Regents exam. The Regents exam will be based on the content column in this core curriculum and is required for all students.

***UHS American History**

Grade Level: 11 **Credit:** 1 Unit **Prerequisite:** Teacher recommendation, review for writing samples, an average of 90% or better for the first three quarters in social studies and an overall end of year GPA of 85%.

This is an in-depth college level course designed for students with a special interest and ability in U.S. History and other Social Science disciplines. It is ideally suited for, although not limited to, the student who plans to major

in Social Science in college. It is a full-year college introductory course in U.S History from colonial times to the present. The course will provide an examination of U.S. political institutions and behavior, public policy, social and economic change, diplomacy and international relations, as well as cultural and intellectual development in U.S. history. Essay writing is essential and emphasized. Students will be required to analyze historical evidence and primary sources throughout the course. While students receive 1 unit of credit for New York State, it should be noted that this course consists of two half-year courses which yield six credit hours at SCCC.

***UHS Sociology**

Grade Level: 11-12 **Credit:** 1 Unit **Prerequisite:** Successful completion of Global History 10, the Regents exam, and an overall GPA of 80% for previous social studies class.

Sociology is the study of society and how it functions. Students will study the fundamentals of sociology including topics in deviance, social class, power, gender, race and family. The course will also investigate the problems facing the United States and other nations in these areas. There is a final exam in June. This is a three-credit course offered through SCCC.

History through Archaeology and Art

Grade Level: 9-12 **Credit:** 1 Unit

This course is designed to introduce students to the field of archaeology. Archaeology is the systematic study of past human life and culture by the recovery and examination of remaining material evidence, such as buildings, tools, pottery, works of art and other artifacts. In exploring social studies content, this course will emphasize critical thinking skills, experiential learning, and connections between several disciplines of study. It will also provide additional review and enrichment to assist students who need to repeat the Global History Regents. There is a school exam in June.

Participation in Government

Grade Level: 12 **Credit:** ½ Unit **Prerequisite:** Successful completion of concurrent with American History.

PIG will emphasize the nature of the citizen's role in a democracy and will provide students with tools and techniques necessary to fulfill that roll. Emphasis will be placed on defining and understanding responsible citizenship, civic engagement, rights and responsibilities, public policy issues, and methods of participation in the public policy-making process. The course will draw on life experience beyond the classroom and school and will be related to problems or issues addressed by students at the local, state, national and global levels. **Course is required for graduation

Economics

Grade Level: 12 **Credit:** ½ Unit **Prerequisite:** Successful completion or concurrent with American History.

This course will stress the basic economic concepts and understanding which all people need to function effectively and intelligently both as citizens and participants in the economy of the United States and the world. Specifically, students will learn the basic theories behind the operation of a market economy and will understand and be able to evaluate the government's role in regulating the economy. Students will also study consumer related topics such as savings, investing, budgeting, and the use of credit. The course will emphasize a rational decision-making process which can be applied to all economic decisions.

**Course is required for graduation

Advanced Placement United States Government & Politics

Grade Level: 12 **Credit:** 1 Unit **Prerequisite:** Teacher recommendation, review of writing samples, an average of 85% or better for the first three quarters in social studies and a 85% or better on the US History and Government Regents.

This course will give students an analytical perspective on government and politics in the United States. It includes both the study of general concepts used to interpret U.S. government and politics and the analysis of specific examples. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. government and politics. Students will become acquainted with the variety of theoretical perspectives and explanations for various behaviors and outcomes. Students successfully completing this course will:

- know important facts, concepts, and theories pertaining to U.S. government and politics
- understand typical patterns of political processes and behavior and their consequences (including the components of political behavior, the principles used to explain or justify various government structures and procedures, and the political effects of these structures and procedures)
- be able to analyze and interpret basic data relevant to U.S. government and politics (including data presented in charts, tables, and other formats)
- be able to critically analyze relevant theories and concepts, apply them appropriately, and develop their connections across the curriculum

The following topics will be covered: constitutional underpinnings of United States Government; political beliefs and behaviors; political parties, interest groups and mass media; instructions of national government; public policy; and Civil Rights and Civil Liberties. Students are required to take the AP exam in May which has a fee of \$93 (financial assistance may be available).

Senior Seminar: The College Process

Grade Level: 12 **Credit:** ½ Unit **Senior Seminar Requirements:** College Bound Seniors

The College Admissions Process has often been identified as the most complex responsibility facing parents and senior in high school. This course is designed to inform students and their parents of the college process. We will answer the basic questions of where to go to college and the differences between them, all the way up to the Index to College Majors. Students will be given time to work on college applications, scholarship opportunities, and learn about college life. There is no single correct way to approach the process, but knowing what is expected will help. The course is a half year class that is graded by Pass or Fail. Attendance, applications, and participation will be the basis for passing the class. This will be a half year course for any college bound senior.

TECHNOLOGY COURSES

Technology

Grade Level: 7-8

- Measurement-students will learn how to read and use both the English and Metric Systems of measurement. They will use their measurement skills in building a project at the end of the unit.
- Electricity and Lasers-students will learn about parallel and series circuits. The difference between electricity and electronics will be discussed. An explanation of lasers and their applications will be included in this unit. The students will use computer software to design and test electrical circuits, as well as laser circuits. Actual low voltage electrical circuits may also be built.
- Manufacturing Processes-students will learn the steps in the manufacturing process and the specific types of processes used in changing raw or manufactured materials into finished products. Students will design, build and race their cars at the end of the unit.
- Technological Systems-hydraulics and pneumatics systems are examined. The difference between open and closed systems are discussed. Students will look at how robotics incorporates into these systems. The unit culminates with the students building a robotic arm using the concepts of hydraulics and pneumatics.
- Environmental Technology-students will learn about different energy sources such as geothermal, solar, wind power, fuel cells, battery power and more. Students will complete projects on solar vehicles and wind turbines

- **Appropriate Resources and Problem Solving**-students will learn the seven technological resources and how they can be used. Students will learn the steps in problem solving. The final project for this unit is for the students to design a city layout utilizing their resources, problem solving skills and budgeting.
- **Transportation and Flight**-the major topics include the differences between gasoline and diesel engines, how engines work, aerodynamics, and the different between liquid and solid fuel rocket engines. Students will build their own rockets and then launch them outside on the soccer field.
- **Drafting and Sketching**-Students are introduced to sketching, drafting practices, and multi-view drawings. CAD will be introduced and used by students. There are many scale sketches in this unit.
- **Communication and Multimedia**-communication forms such as radio and television are examined as to how they work. AM and FM radio signals are discussed as to their differences and advantages. If time, students will create a radio show or a television commercial using the media studio in school. Students may also take part in a Student Town Meeting radio program at WAMC in Albany.
- **Construction**-students will examine large building structures such as bridges, dams, and skyscrapers as to how the four structural forces act upon the structures. Different types of building materials are discussed. This unit will also cover residential building. Students will build a bridge of their choice or a scale house to complete the unit.
- **Forensics**-students will learn what the study of forensics is; how DNA is used in crime solving and how the proper crime scene securing is discussed. Final activity for this unit is examining a crime scene and trying to formulate a solution for the crime.
- **Nanotechnology**-students will learn what nanotechnology is and why it is the fastest growing field in the world today. They will be examining how objects are created at the atomic level and what the uses are possible benefits will be. How nanotechnology is changing the engineering field and employment picture in the world will also be examined. The unit will culminate with a hands-on activity to demonstrate how nanotechnology can and will be used in the near future.

Design and Drawing for Production (DDP) (Introduction to Engineering Design) Project Lead the Way

Grade Level: 9-12 **Credit:** 1 Unit **Prerequisite:** Students need a strong math and science background.

This course emphasizes the development of a design. Students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. Students work both individually and in teams to design solutions to a variety of problems using 3D modeling software, 3D printer, and use an engineering notebook to document their work.

*Students who successfully complete this course will qualify for three college credits through Rochester Institute of Technology.

Civil Engineering & Architecture (CEA) Project Lead the way

Grade Level: 10-12 **Credit:** 1 Unit **Prerequisite:** Students need to have completed PLTW, DDP, or POE, have a strong math and science background or teacher recommendation.

This course provides an overview of the fields of Civil Engineering and Architecture, while emphasizing the interrelationship and dependence of both fields on each other. Students use state-of-the-art software to solve real world problems and communicate solutions to hands-on projects. This course covers the following topics: roles of Civil Engineers and Architects, project planning, site planning, building design and project documentation and presentation

**Students who successfully complete this course will qualify for three college credits through Rochester Institute of Technology.

Principles of Engineering (POE) Project Lead the Way

Grade Level: 9-12 **Credit:** 1 Unit **Prerequisite:** D.D.P., strong math and science background or teacher recommendation.

This survey course exposes students to major concepts they'll encounter in a postsecondary engineering course of study. Topics include mechanisms, energy, statics, materials, and kinematics. They develop problem-solving

skills and apply their knowledge of research and design to create solutions to various challenges, document their work and communicate solutions.

*Students who successfully complete this course will qualify for three college credits through Rochester Institute of Technology.

Computer Integrated Manufacturing (CIM) Project Lead the way

Grade Level: 10-12 **Credit:** 1 Unit **Prerequisite:** Students need to have completed PLTW, DDP, or POR, have a strong math and science background or teacher recommendation.

Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing. It teaches students about manufacturing processes, product design, robotics, and automation. Students can earn a virtual manufacturing badge recognized by the National Manufacturing Badge system.

**Students who successfully complete this course will qualify for three college credits through Rochester Institute of Technology

Intro to Computer Programming

Grade Level: 9-12 **Credits:** 1 Unit **Prerequisite:** None

This is a course that teaches the fundamentals of programming by studying the underlying source code. This course will mainly cover programming in JavaScript. Topics include top-down design, loops, conditional statements, functions, arrays, graphics, & animation. The first half of the year is dedicated to learning the basics of programming while the second half of the year focuses more on game design.

Digital Media Production

Grade Level: 9-12 **Credit:** 1 Unit **Prerequisite:** None

Students should be capable of passing the ADOBE PREMIER PRO professional certification exam after this course. Students will take more of a leadership role by developing, directing, producing, and coordinating projects for school functions. They will learn about projects from concept to completion by working on school media projects including standard fundraiser commercials as well as sports, concerts, grants and other requested items.

Video Game Development & Design

Grade Level: 9-12 **Credit:** ½ Unit **Prerequisite:** None

Students will learn to basics of computer programming, design and make their own games using a user-friendly Graphic-User-Interface (GUI). Students may use a variety of software packages depending on what they are trying to achieve. Students will design a back story, characters, levels, and then program them. This is a developing course and may change according to the needs of students.

Property Management/Construction

Grade Level: 9-12 **Credit:** 1 Unit **Prerequisite:** None

This course provides the study of light frame construction techniques, which covers common residential construction materials, components, and systems as related to wood frame structures. Students will learn about residential structures by building models and completing a full-sized building project to study the applications of various construction techniques. The residential construction process will be analyzed from site planning to finish construction. The course may also include editing related specifications and determining cost estimates. Students will experience working outside through the end of the semester. Activities include blueprint reading, masonry work, floor, walls, and roof framing, and interior and exterior finishing. Students will work on a group project to apply their construction skills.

Introduction to Woodworking

Grade Level: 9-12 **Credit:** ½ Unit **Prerequisite:** None

This course is an introductory half-year course that is designed to offer a broad-based view of how people change or process wood materials. Students will complete a variety of projects using various tools and machines to teach them the fundamentals of material processes. This course provides a valuable experience to students interested in bettering hands-on working skills. The entire semester will be spent in the technology shop, building and manufacturing projects.

Advanced Woodworking

Grade Level: 9-12 **Credit:** ½ Unit **Prerequisite:** Intro to Woodworking

This course is designed to be an extension course for students who have completed Introduction to Woodworking. Students will work on more advanced types of projects to build on their woodworking skills and experiences. Complete plans, drawings, and material lists will be required from students for each project. A lab fee could be required depending on the choice of materials that the students choose for projects.

Introduction to Robotics

Grade Level: 9-12 **Credit:** 1 Unit **Prerequisite:** None

This course covers the basics of the ever-growing field of robotics. From programming to metal working, from robot-design to automated systems, this full-year course offers students a hands-on look at robotics. Students will build an automated fish hatchery along with designing and building a variety of robotic vehicles. Topics of study will be: basic metalworking, welding, programming, wiring, electricity/electronics, sensor integration, and automation. This course is open to all students.