

**IROQUOIS**  
**SENIOR HIGH SCHOOL**  

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**2010-2011 SCHOOL YEAR**



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**TABLE OF CONTENTS**

**MISSION STATEMENT** ..... 3

**INTRODUCTION** ..... 3

**GENERAL INFORMATION** ..... 3

**SCHEDULING REQUIREMENTS** ..... 3

**COURSE SEQUENCE** ..... 3

**IROQUOIS GRADUATION REQUIREMENTS** ..... 4

    COMMENCEMENT & DIPLOMA REQUIREMENTS ..... 4

**SCHEDULING GUIDELINES** ..... 4

**MATH & SCIENCE PATHWAYS** ..... 5

    MATH PATHWAYS ..... 5

    SCIENCE PATHWAYS ..... 5

**PROGRAM OF STUDIES** ..... 6

**ARTS & HUMANITIES** ..... 6

*Art & Music* ..... 6

*Foreign Languages* ..... 6

**ENGLISH** ..... 6

**ELECTIVES** ..... 6

*Business* ..... 6

*Family & Consumer Science* ..... 7

*General* ..... 7

*Social Studies Electives\** ..... 7

*Technology Education* ..... 7

**HEALTH/PHYSICAL EDUCATION** ..... 7

**MATHEMATICS** ..... 7

**SCIENCE** ..... 8

**SOCIAL STUDIES\*** ..... 8

**ERIE COUNTY TECHNICAL SCHOOL (ECTS)** ..... 9

    ECTS COURSE SEQUENCING & CREDIT REQUIREMENTS ..... 9

    ECTS THREE-YEAR COURSES – ENTRY LEVEL ..... 10

    ECTS JUNIORS AND SENIORS ONLY PROGRAM ..... 10

**RESERVE OFFICER TRAINING CORPS (ROTC)** ..... 10

**DUAL ENROLLMENT - REGIONAL CHOICE INITIATIVE (RCI)** ..... 11

    DUAL ENROLLMENT CRITERIA & PROCEDURE ..... 11

**COURSE DESCRIPTIONS** ..... 12

**ART** ..... 12

**BUSINESS** ..... 13

**ELECTIVES** ..... 14

**ENGLISH** ..... 15

**FAMILY & CONSUMER SCIENCES** ..... 17

**FOREIGN LANGUAGES** ..... 18

**HEALTH/PHYSICAL EDUCATION** ..... 19

**MATH** ..... 20

**MUSIC** ..... 21

**SCIENCE** ..... 22

**SOCIAL STUDIES REQUIRED SEQUENCE** ..... 24

**SOCIAL STUDIES ELECTIVES** ..... 25

**TECHNOLOGY EDUCATION** ..... 26

## **MISSION STATEMENT**

The mission of the Iroquois School District, in partnership with family and community, is to prepare students for an ever-changing world and promote responsible citizenship by providing diverse educational opportunities and effective learning techniques.

## **INTRODUCTION**

This curriculum guide serves as a reference to courses available for selection by students, grades 9 through 12, in the Iroquois Senior High School. It represents a resource of information pertinent to each course and to specific individual interests, desires, or needs.

In planning one's secondary years, it is important to seek the guidance and help of subject teachers, school counselors, and administrators. This guide explains the programs of study as well as the Iroquois graduation requirements. This curriculum guide and the involvement of your parents and members of the Iroquois staff will help you in making course choices that will support your future plans.

Your future depends upon the choices that you make now and upon those made periodically as you progress from one grade to the next. We encourage you to familiarize yourself with the contents of this curriculum guide to gain maximum benefit from the Iroquois Jr.-Sr. High School curriculum.

## **GENERAL INFORMATION**

The following materials are intended to provide helpful guidance to both students and parents. The information, when combined with assistance from counselors, will enable students to plan their program of study.

In selecting courses of study, each student should consider:

- (1) Graduation requirements of Iroquois High School
- (2) Courses that will meet the student's future vocational and/or academic goals
- (3) Student's ability.

## **SCHEDULING REQUIREMENTS**

Iroquois has an intensive block schedule day. There are no study halls. All students must carry at least eight (8) one-credit courses or their equivalent in an academic year. Each student must carry at least four (4) one-credit courses per semester. Whenever possible, students that fail a required subject will be rescheduled into the course as soon as possible. Students failing required courses are encouraged to make plans to retake it in an approved credit recovery program or summer school if it cannot be immediately rescheduled. All students are encouraged to schedule as many courses as possible to enrich their program of study.

## **COURSE SEQUENCE**

The goal of the Iroquois high school curriculum is to prepare all students for today's challenges through a rigorous course of study. Regardless of the path chosen after high school, it is vital that all students have developed skills in the areas of technology, math, science, and English. In addition, a working knowledge of social sciences, exposure to the arts and humanities and at least two semesters of a foreign language are essential in developing critical thinking skills. To that end, defined pathways, course sequences and rigorous graduation requirements ensure that all students develop competency in the aforementioned areas.

## **IROQUOIS GRADUATION REQUIREMENTS**

|  |  |                     |
|--|--|---------------------|
| English                                      | 1 credit is required per year in Grades 9-12.            | 4.00 Credits        |
| Social Studies                               | 4 sequential courses are required in Grades 9-12.        | 4.00 Credits        |
| Science                                      | 4 sequential courses are required in Grades 9-12.        | 4.00 Credits        |
| Math   | 4 sequential courses are required in Grades 9-12.        | 4.00 Credits        |
| Arts & Humanities                            | 2 credits are required in Grades 9-12.                   | 2.00 Credits        |
| Health & PE                                  | 4 credits recommended, 3 credits required in Grades 9-12 | 3.00 Credits        |
| Electives                                    | 7 credits minimum required in Grades 9-12.               | <u>7.00</u> Credits |
| <b>Total Credits Required for Graduation</b> |  | <b>28 Credits*</b>  |

\* 28.00 credits are required to graduate beginning with the class of 2012.

\* 26.00 credits are required for preceding classes (minimum of 2.50 Health/PE and 5.50 General Elective Credits).

## **COMMENCEMENT & DIPLOMA REQUIREMENTS**

Students must meet every graduation requirement in order to participate in the Commencement exercises. Successful completion of the Culminating Graduation Project is required to be issued a diploma. Seniors must attain proficient or advanced on the junior year PSSA test in reading and math or retake the PSSA test in the specified area(s). Successful completion of PSSA testing and/or a local assessment, including mandatory remediation is required to be issued a diploma.

## **SCHEDULING GUIDELINES**

1. There are no scheduled study halls.
2. Course sequences in all curricular areas must be followed.
3. All courses are a full semester long unless otherwise noted.
4. Courses with fewer than 10 students may not be conducted.
5. AP, Honors, and Dual Enrollment classes carry a “weighted” grade.
6. Schedules are finalized when school starts or when a student enters school for the year.
7. Student requested schedule changes are not permitted after the first full week of the school year.
8. All students should take two years of a foreign language, starting with Spanish I or French I in gr. 9.
9. Successful completion of preceding course sequence and/or prerequisite courses is required to progress.
10. The guidance counselors and administration on a case-by-case basis will review program of study changes.
11. Many courses can be used as an elective after the required courses and/or sequences are completed (with approval).
12. Core courses, pathways and levels are recommended via teacher review of student achievement data (Math, Science, English and Social Studies).

## MATH & SCIENCE PATHWAYS

Four (4) math and four (4) science credits are required to graduate.

Students are placed into recommended math and science courses via teacher committee using assessment and achievement data. These placements follow defined sequences or “pathways” tailored to student ability level.

Pathways must be followed in sequence. Math and Science *other offerings* count as required credits towards graduation after the required course sequence is satisfied.

Doubling courses in sequence with instructor approval can allow students to move from path A to path B or to move from path B to path C. As long as prerequisites are met, **students may move through the sequences faster than suggested with instructor approval.**

### MATH PATHWAYS

#### *Path A*

- 9 Pre-Algebra
- 10 Algebra I
- 11 Geometry
- 12 Algebra II

#### *Path B*

- 9 Algebra I
- 10 Geometry
- 11 Algebra II
- 12 Trigonometry/Pre-Calculus (and/or) Probability & Statistics

#### *Path C*

- 9 Algebra II
- 10 Geometry
- 11 Trigonometry/Pre-Calculus
- 12 Calculus I Honors

#### *Other Offerings, Grade 11/12:*

- Calculus I Honors
- Calculus II Honors
- Probability & Statistics

### SCIENCE PATHWAYS

#### *Path A*

- 9 General Science
- 10 Biology
- 11 Chemistry
- 12 Physics or Physical Science II (one required)

#### *Path B*

- 9 Biology
- 10 Chemistry
- 11 Physics

#### *Other Offerings, Grade 11/12:*

- AP Biology
- AP Chemistry
- AP Physics (Available 2011-2012)
- Environmental Science

## PROGRAM OF STUDIES

| <u>Course No.</u>            | <u>Subject</u>                        | <u>Grade</u> | <u>Credit</u> |
|------------------------------|---------------------------------------|--------------|---------------|
| <b>ARTS &amp; HUMANITIES</b> |                                       |              |               |
| <i>Art &amp; Music</i>       |                                       |              |               |
| 2601                         | Fundamentals of Art/Intro to Drawing  | 9-10-11-12   | 1.00          |
| 2605                         | Ceramics & Sculpture                  | 9-10-11-12   | 1.00          |
| 2602                         | Drawing & Painting                    | 10-11-12     | 1.00          |
| 2604                         | Printmaking/Black & White Photography | 10-11-12     | 1.00          |
| 2607                         | Computer Graphics                     | 10-11-12     | 1.00          |
| 2608                         | Studio Art                            | 11-12        | 1.00          |
| 2611                         | Art History                           | 11-12        | 1.00          |
| 2648                         | Concert Choir*                        | 9-10-11-12   | 1.00          |
| 2650                         | Stage Craft, Sound & Lighting         | 9-10-11-12   | 1.00          |
| 2654                         | Marching & Concert Band*              | 9-10-11-12   | 1.00          |
| 2653                         | Vocal Ensemble                        | 10-11-12     | 1.00          |
| <i>Foreign Languages</i>     |                                       |              |               |
| 2501                         | French I                              | 9-10-11-12   | 1.00          |
| 2502                         | French II                             | 10-11-12     | 1.00          |
| 2503                         | French III                            | 11-12        | 1.00          |
| 2504                         | French IV                             | 12           | 1.00          |
| 2506                         | Spanish I                             | 9-10-11-12   | 1.00          |
| 2507                         | Spanish II                            | 10-11-12     | 1.00          |
| 2508                         | Spanish III                           | 11-12        | 1.00          |
| 2509                         | Spanish IV                            | 12           | 1.00          |

\* Concert Choir and Marching & Concert Band are full year A/B day courses that are scheduled opposite of full year A/B Health & Physical Education class. **These courses cannot be divided into semester-long courses.**

### ENGLISH

|      |                     |    |      |
|------|---------------------|----|------|
| 2101 | English 9           | 9  | 1.00 |
| 2102 | English 9 Honors    | 9  | 1.00 |
| 2104 | English 10          | 10 | 1.00 |
| 2105 | English 10 Advanced | 10 | 1.00 |
| 2106 | English 10 Honors   | 10 | 1.00 |
| 2108 | English 11          | 11 | 1.00 |
| 2109 | English 11 Advanced | 11 | 1.00 |
| 2110 | English 11 Honors   | 11 | 1.00 |
| 2112 | English 12          | 12 | 1.00 |
| 2113 | English 12 Advanced | 12 | 1.00 |
| 2114 | English 12 Honors   | 12 | 1.00 |

### ELECTIVES

|                 |                                      |            |      |
|-----------------|--------------------------------------|------------|------|
| <i>Business</i> |                                      |            |      |
| 2733            | Computer Applications                | 9-10-11-12 | 1.00 |
| 2732            | Web/Digital Design                   | 10-11-12   | 1.00 |
| 2734            | Introduction to Computer Programming | 10-11-12   | 1.00 |
| 2735            | Accounting                           | 10-11-12   | 1.00 |
| 2737            | Personal Finance                     | 11-12      | 1.00 |
| 2736            | Your Employability Skills (Y.E.S.)   | 12         | 1.00 |

| <u>Course No.</u>                           | <u>Subject</u>                                   | <u>Grade</u> | <u>Credit</u> |
|---|--|--------------|---------------|
| <b><i>Family &amp; Consumer Science</i></b> |  |              |               |
| 2760  | Family & Consumer Science                        | 9-10         | 1.00          |
| 2764  | Child Development                                | 10-11-12     | 1.00          |
| 2761  | Foods & Nutrition I                              | 10-11-12     | 1.00          |
| 2762  | Foods & Nutrition II                             | 11-12        | 1.00          |
| <b><i>General</i></b>                       |  |              |               |
| 2116  | Journalism I                                     | 10-11-12     | 1.00          |
| 2117  | Journalism II                                    | 10-11-12     | 1.00          |
| 2118  | Journalism III                                   | 11-12        | 1.00          |
| 2119  | Journalism IV                                    | 12           | 1.00          |
| 2120  | Speech   | 9-10-11-12   | 1.00          |
| 2150  | Academic Sports League                           | 9-10-11-12   | 1.00          |
| 8100  | Air Force Junior Reserve Officers Training Corps | 9-10-11-12   | 2.00          |
| 2142  | Creative Writing                                 | 10-11-12     | 1.00          |
| 2135  | SAT Preparation (Math/Verbal)                    | 10-11-12     | 1.00          |
| 2850  | Yearbook I                                       | 10-11-12     | 1.00          |
| 2851  | Yearbook II                                      | 11-12        | 1.00          |
| <b><i>Social Studies Electives*</i></b>     |  |              |               |
| 2217  | Modern World Issues                              | 11-12        | 1.00          |
| 2218  | Psychology of Human Behavior                     | 11-12        | 1.00          |
| 2219  | Criminal Justice                                 | 11-12        | 1.00          |
| <b><i>Technology Education</i></b>          |  |              |               |
| 2701  | Activities in Technology**                       | 9            | 1.00          |
| 2703  | Wood Technology I                                | 10-11-12     | 1.00          |
| 2704  | Wood Technology II                               | 11-12        | 1.00          |
| 2705  | Advanced Wood Technology                         | 11-12        | 1.00          |
| 2711  | CADD I   | 9-10-11-12   | 1.00          |
| 2712  | CADD II  | 10-11-12     | 1.00          |
| 2713  | Advanced CADD                                    | 11-12        | 1.00          |

\* These courses cannot be used to satisfy the social studies required sequence.

\*\* All grade 9 students are enrolled in this course. Can be used to satisfy general elective requirements.

#### **HEALTH/PHYSICAL EDUCATION**

|      |                                   |       |      |
|------|-----------------------------------|-------|------|
| 2801 | Health & Physical Education 9/10  | 9-10  | 1.00 |
| 2803 | Health & Physical Education 11/12 | 11-12 | 1.00 |

#### **MATHEMATICS**

|      |                            |            |      |
|------|----------------------------|------------|------|
| 2303 | Pre-Algebra                | 9          | 1.00 |
| 2304 | Algebra I                  | 9-10-11-12 | 1.00 |
| 2305 | Algebra II                 | 9-10-11-12 | 1.00 |
| 2306 | Geometry                   | 9-10-11-12 | 1.00 |
| 2313 | Probability and Statistics | 10-11-12   | 1.00 |
| 2308 | Trigonometry/Pre-Calculus  | 10-11-12   | 1.00 |
| 2309 | Calculus I Honors          | 10-11-12   | 1.00 |
| 2310 | Calculus II Honors         | 11-12      | 1.00 |

| <u>Course No.</u>      | <u>Subject</u>             | <u>Grade</u> | <u>Credit</u> |
|------------------------|----------------------------|--------------|---------------|
| <b>SCIENCE</b>         |                            |              |               |
| 2401                   | General Science            | 9            | 1.00          |
| 2404                   | Biology                    | 9-10         | 1.00          |
| 2407                   | Chemistry                  | 10-11-12     | 1.00          |
| 2412                   | Physics                    | 10-11-12     | 1.00          |
| 2416                   | Physical Science II        | 11-12        | 1.00          |
| 2419                   | Environmental Science      | 11-12        | 1.00          |
| 2406                   | AP Biology                 | 11-12        | 1.00          |
| 2410                   | AP Chemistry               | 11-12        | 1.00          |
| 2413                   | AP Physics (2011-2012)     | 11-12        | 1.00          |
| <b>SOCIAL STUDIES*</b> |                            |              |               |
| 2202                   | Geography/Economics        | 9            | 1.00          |
| 2203                   | Geography/Economics Honors | 9            | 1.00          |
| 2204                   | World History II           | 10           | 1.00          |
| 2205                   | World History II Honors    | 10           | 1.00          |
| 2207                   | American History II        | 11           | 1.00          |
| 2208                   | American History II Honors | 11           | 1.00          |
| 2215                   | American Government        | 12           | 1.00          |
| 2214                   | American Government Honors | 12           | 1.00          |

\* Students are required to sequentially take Geography & Economics, World History II, American History II and American Government.

## ERIE COUNTY TECHNICAL SCHOOL (ECTS)

The Erie County Technical School (ECTS) provides career and technical education for the students of our school. Students in grades 10 through 12, who are interested in a technical career, should see their school counselor for information concerning application and selection. A curriculum guide for ECTS is available in the counseling office.

Students selected are enrolled in half-day attendance at ECTS and half-day at their home school. Four (4) credits per year can be earned toward graduation.

Many post-secondary institutions have articulation agreements with ECTS. These agreements allow our students guaranteed admission, advanced placement or exemption from taking certain classes. Articulation agreements save students both time and money for the work they have completed in high school.

| <u>Course No.</u> | <u>Subject</u>                    | <u>Grade</u> | <u>Credit</u> |
|-------------------|-----------------------------------|--------------|---------------|
| 2792 or 2793      | VOCATIONAL COURSES                |              |               |
|                   | Art & Design for Business         | 10-11-12     | 4.00          |
|                   | Auto Body Repair                  | 10-11-12     | 4.00          |
|                   | Automotive Technologies           | 10-11-12     | 4.00          |
|                   | Computer Information Systems      | 10-11-12     | 4.00          |
|                   | Construction Trades               | 10-11-12     | 4.00          |
|                   | Cosmetology                       | 10-11-12     | 4.00          |
|                   | Culinary Arts                     | 10-11-12     | 4.00          |
|                   | Drafting & Design                 | 10-11-12     | 4.00          |
|                   | Graphic Communications            | 10-11-12     | 4.00          |
|                   | Early Childhood Education         | 10-11-12     | 4.00          |
|                   | Electrical Engineering            | 10-11-12     | 4.00          |
|                   | Electronics                       | 10-11-12     | 4.00          |
|                   | Facility Maintenance Technologies | 10-11-12     | 4.00          |
|                   | Health Assistant                  | 10-11-12     | 4.00          |
|                   | Metal Fabrication                 | 10-11-12     | 4.00          |
|                   | Tool & Die                        | 10-11-12     | 4.00          |
|                   | Networking Technologies           | 11-12        | 4.00          |
|                   | Tourism & Hospitality Management  | 11-12        | 4.00          |

### ECTS COURSE SEQUENCING & CREDIT REQUIREMENTS

ECTS students must complete 28 credits\* for graduation. Requirements must be met as follows:

|          |               |                 |                      |
|----------|---------------|-----------------|----------------------|
| ECTS:    | 12.00 credits | Social Studies: | 3.00 credits         |
| English: | 4.00 credits  | PE/Health:      | 1.00 credit          |
| Math:    | 3.00 credits  | Electives:      | 2.00 credits minimum |
| Science: | 3.00 credits  |                 |                      |

- \* 28.00 credits are required to graduate beginning with the class of 2012.  
26.00 credits are required for preceding classes (including elective credits as possible).

Students follow a regular 9<sup>th</sup> grade schedule and then typically meet graduation requirements as follows:

| <u>Grade 10</u> | <u>Grade 11</u> | <u>Grade 12</u> |
|-----------------|-----------------|-----------------|
| English         | English         | English         |
| Math            | Math            | Social Studies  |
| Science         | Science         | Elective        |
| Social Studies  | Elective        | Elective        |

## **ECTS THREE-YEAR COURSES – ENTRY LEVEL**

### Communications Cluster:

- Art & Design for Business
- Computer Information Systems
- Drafting & Design
- Graphic Communications

### Construction Cluster:

- Construction Trades
- Facility Maintenance Technologies

### Human Services:

- Cosmetology
- Culinary Arts
- Early Childhood Education
- Health Assistant

### Manufacturing Cluster:

- Electrical Engineering
- Electronics
- Metal Fabrication
- Tool & Die

### Transportation:

- Auto Body Repair
- Automotive Technologies

## **ECTS JUNIORS AND SENIORS ONLY PROGRAM**

Students in grade 11-12 are offered the opportunity to enroll in one of the following two-year courses:

- Networking Technologies
- Tourism & Hospitality Management

## **RESERVE OFFICER TRAINING CORPS (ROTC)**

Through the Regional Choice Initiative program (RCI), students in grades 9-12 in the Iroquois School District can participate in ROTC. The program is run by the Air Force and housed at Seneca High School. Students must maintain good academic, behavioral, and attendance standing within the program and home school to continue to be eligible for the ROTC program. Students will earn 2.0 credits per school year for participation in ROTC. These credits are applied as follows to the Iroquois School District Graduation requirements.

### Grade 9

|             |             |
|-------------|-------------|
| Science     | 1.00 Credit |
| PE/Elective | 1.00 Credit |

### Grade 10

|                |             |
|----------------|-------------|
| Social Studies | 1.00 Credit |
| PE/Elective    | 1.00 Credit |

### Grade 11

|             |             |
|-------------|-------------|
| Science     | 1.00 Credit |
| PE/Elective | 1.00 Credit |

### Grade 12

|                |             |
|----------------|-------------|
| Social Studies | 1.00 Credit |
| PE/Elective    | 1.00 Credit |

## DUAL ENROLLMENT - REGIONAL CHOICE INITIATIVE (RCI)

Dual enrollment, referred to as “concurrent enrollment” in the School Code, is an initiative by the Commonwealth of Pennsylvania to allow a broader range of students to experience post-secondary coursework and its increased academic rigor, while still in the supportive environment of their local high school. The intent is to increase the number of students that go on to post-secondary education and to decrease the need for remedial coursework at post-secondary institutions. All post-secondary courses carry a weighted grade.

Dual enrollment is a locally administered program that allows a secondary student to concurrently enroll in post-secondary courses (college) and to receive both secondary and post-secondary credit for that coursework. The local programs are run through partnerships between school entities and eligible post-secondary institutions. Students can take collegiate level courses at local participating colleges or through the Regional Choice Initiative (RCI) at the Skill Center next to the Erie County Technical School.

### Dual Enrollment Criteria & Procedure

1. The student is a high school junior or senior.
2. Complete a Dual Enrollment/RCI Application prior to scheduling dual enrollment classes.
3. The student is making satisfactory progress toward fulfilling graduation requirements as determined by the school district, including progress on the Culminating Graduation Project (CGP).
4. The student has scored at least proficient on the PSSA assessment and/or 4Sight testing.
5. **The student demonstrates readiness for college-level coursework in the intended subject area of study, as determined by the college.** The college will determine readiness based on high school GPA, SAT scores, and/or completed specific college level courses.
6. Case by case review by home school principal/counselor using grades, curriculum, and completed PSSA scores and/or 4Sight scores along with recommendation of core curriculum course teacher.
7. Maintenance of a secondary school grade point average of 3.0 or above in the applicable area of study. Maintenance of 3.0 GPA in each dual enrollment course from prior semesters.
8. No disciplinary referrals year prior to application.
9. Allowable collegiate courses:
  - a. English, Reading, Language Arts
  - b. Mathematics
  - c. Science
  - d. Social Sciences
  - e. Foreign Language
  - f. Civics, Government, Economics
  - g. Arts
  - h. Geography
  - i. History
10. Course work completed at the “B” or better level may be eligible for whole or partial reimbursement contingent upon state funding.

## COURSE DESCRIPTIONS

### ART

2601 FUNDAMENTALS OF ART/INTRO TO DRAWING  
Credit: 1.00

Grades 9-12

Fundamentals of Art/Intro to Drawing is the prerequisite for all art classes. Fundamentals of Art is an extension and reinforcement of prior visual art knowledge and skill. A variety of media and techniques are explored through an introduction to drawing, painting, and basic design. Drawing techniques using graphite, charcoal, colored pencil, and pastel will be explored. Students will focus on drawing from observation and apply themes and style to their work. Subjects may include still life and the figure. Art history will be introduced by a project-based approach which will include research through the use of technology as well as class presentations and writing across the curriculum. The goal of the course is to lay a strong basic foundation inherent to all advanced art electives. A sketchbook is required.

2605 CERAMICS & SCULPTURE  
Credit: 1.00

Grades 9-12

Ceramics & Sculpture will provide an intensive study in the three-dimensional arts. There will be an exploration of clay and glazing techniques that will include procedures in hand-building skills using pinch, slab, coil and modeling methods. Students will learn the functions of the kiln. The sculpture component of the course will explore three-dimensional design techniques using media such as paper/cardboard, wire, and papier mache construction. The course will provide basic vocabulary, materials, techniques, and skills in ceramics and sculpture. Art history will be introduced by a project-based approach. A sketchbook is required.

2602 DRAWING & PAINTING  
Credit: 1.00

Grades 10-12

Drawing & Painting is a semester long sequential approach to the study of drawing and painting techniques and media. In Drawing, students will develop skills by creating advanced projects with graphite, ink, colored pencil, and pastel. Students will be drawing from observation and themes will include still life and the figure as well as those developed by the student. In Painting, students will explore techniques in tempera, watercolor, acrylic and exposure to oil paint. Themes will be taken directly from painting styles in art history. Students will be expected to research through technology. Class presentations such as slide shows or power points will showcase information learned. A sketchbook is required.

2604 PRINTMAKING/BLACK & WHITE PHOTOGRAPHY  
Credit: 1.00

Grades 10-12

Printmaking/Black & White Photography is a semester long approach to the study of printmaking and black and white photography techniques and media. In Printmaking, students will learn skills in intaglio, serigraphy and relief printing. In Black & White Photography, students will learn the basics of taking and composing black and white photographs. The use of the 35 mm camera controls, lighting, and the dark room is inherent to the class. Students are encouraged to provide their own 35 mm camera and will photograph subjects outside of the classroom. A sketchbook is required. The Black & White Photography component of this course satisfies 0.50 credit for technology requirements.

2607 COMPUTER GRAPHICS  
Credit: 1.00

Grades 10-12

Computer Graphics is a semester long approach to the use of the computer as a tool to manipulate and layout designs, images, typography, and graphics. Some projects include but are not limited to, a photo image manipulation, logo design, CD or DVD jacket, creative resume, letterhead, poster, and business card design. Students will explore the use of Adobe Photoshop CS3, Adobe Bridge, a scanner, large format color printer and a digital camera. *Prerequisite: Fundamentals of Art and computer background.*

2608 STUDIO ART  
Credit: 1.00

Grades 11-12

Studio Art is for the advanced art student. The purpose is to allow a junior or senior student who has completed most of the art electives including Fundamentals of Art to specialize in an art area of his/her choice. The student should have a minimum grade of a "B" in previously taken art electives. Areas of choice include: studio problems in drawing, painting, sculpture, ceramics, photography, graphic design, and printmaking. All students must have instructor recommendation. The goal of the course is to allow advanced students the opportunity to become more skilled in the process of designing creative problems and the decision making required to solve those problems. Art history will be introduced by a project-based approach. A sketchbook is required.

2611 ART HISTORY  
Credit: 1.00

Grades 11-12

Art History is a course of study providing a condensed version of the history of art from the cave paintings to 20th century artists. The goal of the course is to provide an essential artistic vocabulary along with an understanding and appreciation of artistic styles and periods that address the State Standards in the Arts and Humanities. Field trips to area museums may be planned.

## **BUSINESS**

2733 COMPUTER APPLICATIONS  
Credit: 1.00

Grades 9-12

Computer Applications provides an introduction to Microsoft Office Suite and its major applications - Word, Excel (including charts and graphs), and PowerPoint slide shows. Students will work with Desktop Publishing, create their own iMovies and work with iPhoto, use web-based applications and Mac publishing software.

2732 WEB/DIGITAL DESIGN  
Credit: 1.00

Grades 10-12

Web/Digital Design is a semester-long course that covers web page design using Macromedia's Dreamweaver MX and Fireworks MX. Topics include graphics, page design, website design, drawing, and animation. Students will be expected to develop websites and a web photo album. Upon completion of this course, students will be able to apply what they have learned to create compelling websites.

2734 INTRODUCTION TO COMPUTER PROGRAMMING  
Credit 1.00

Grades 10-12

Students will learn the history of programming and how to write simple code in several of the most popular programming languages with an emphasis on JAVA. Students will learn fundamentals that will prepare them for collegiate level programming.

2735 ACCOUNTING  
Credit: 1.00

Grades 10-12

Accounting covers the accounting cycle for a sole proprietorship and highlights the features of a corporation. Accounting helps students develop personal and professional skills for school and the world of business. Accounting is a recommended preparatory course for those planning to pursue a degree in business or accounting.

2737 PERSONAL FINANCE  
Credit: 1.00

Grades 11-12

Personal Finance helps the student understand issues and situations he/she will face in today's world. The latest information on using credit wisely, money and banking, taxes, insurance savings, consumer rights and responsibilities, investing, setting financial goals and much more will be covered. These are topics which all students should know before graduation from high school.

2736 YOUR EMPLOYABILITY SKILLS (Y.E.S.)  
Credit: 1.00

Grade 12

The YES™ certificate program helps individuals develop the fundamental skills employers require to maintain a well-trained work force. It addresses key employability issues and offers participants a pathway to a secure and rewarding future. Students successfully completing this course will earn a certificate of completion and credit. The certificate of completion may assist students in obtaining an interview more quickly than without the certificate.

### ELECTIVES

2116 Journalism I  
2117 Journalism II  
2118 Journalism III  
2119 Journalism IV

Credit: 1.00 Per Course

Grades 10-12

Students study the basics of journalism writing in both print journalism and broadcasting. The students also contribute to the newspaper, the Smoke Signal, and to the television broadcasts, which the class produces. Each additional year of the course will build on the previous year, with increased responsibilities for the production of the paper and the broadcasts.

2120 SPEECH  
Credit: 1.00

Grades 9-12

Speech 9-12 is an elective course designed for students who wish to improve their communication and public speaking skills. The areas covered include listening, speaking, and research as aligned with the reading, writing, speaking, and listening Pennsylvania Academic Standards 1.6 and 1.8. The primary focus is on effective listening and speaking, with special emphasis on successful delivery techniques. Several speeches place emphasis on research skills such as the location, organization, and acknowledgment of sources. Five types of these speeches are mandatory (introduction, informational, persuasive, demonstration, and personal experience), and students may select from a list of optional types of speeches for the five remaining.

2150 ACADEMIC SPORTS LEAGUE (ASL)  
Credit: 1.00

Grades 9-12

The Academic Sports League (ASL) is a course designed to promote academic excellence through teamwork among students of all achievement levels. Students will study selected topics in language and literature, art, music, mathematics, science, economics, and social science. In addition, students will practice effective public speaking, interview strategies, and essay writing. Students study the areas of content supplied by the United States Decathlon and then compete as a team against other area schools. The French Revolution is the theme for the 2009-2010 Academic Sports League competition season. ***Students must enroll in the course and be able to attend Saturday competitions to participate in this course.***

8100 AIR FORCE JUNIOR RESERVE OFFICERS TRAINING CORPS (AFJROTC)  
Credit: 2.00

Grades 9-12

This course will enable students that are interested in the armed forces to gain an early start in the career. Students enrolled in AFJROTC program will receive credit in Social Studies (1 credit alternating years), Science (1 credit alternating years), Physical Education and Elective (1 credit alternating years). Seneca High School is the host of this program. Students will be bussed to Seneca High School for the course. The instructor may deem additional drill time necessary.

2142 CREATIVE WRITING  
Credit: 1.00

Grades 10-12

This course is designed to teach students to read and analyze various verse models and then create their own poems patterned after these models. Students will also analyze strategies of effective prose writing, read various prose forms and then write their own prose. At the completion of the course, students will publish their own creations in a literary magazine.

2135 SAT PREPARATION (Math/Verbal)  
Credit: 1.00

Grades 10-12

The SAT preparation course is an elective course for students in grades 10, 11 and 12. It is designed to prepare students in the areas of critical reading, sentence completions, writing skills, the new SAT essay, and mathematics. This course will also encompass, for interested students, items tested on the ACT including but not limited to English grammar and punctuation, reading comprehension, mathematical applications, and science reasoning.

2850 YEARBOOK I  
Credit: 1.00

Grades 10-12

Yearbook I is designed to give students the opportunity to prepare and produce a high quality yearbook. Students will learn the basics of yearbook production. Topics will include: theme, layout design, writing copy, taking photos, and meeting a budget. Students in Yearbook I will be required to: (1) contribute to the completion of layouts; (2) take photos used in the yearbook; (3) meet fundraising goals.

2851 YEARBOOK II  
Credit: 1.00

Grades 11-12

Yearbook II is a follow-up course to Yearbook I. Students who take Yearbook II will be given increased responsibilities and duties including: editing copy and layouts, entering copy on the computer program, choosing photos to be used for layouts and budget preparation and planning. Students will have to meet the requirements of Yearbook I plus (1) edit completed layouts and; (2) assist Yearbook I students in their work.

*In both yearbook classes, students will be REQUIRED to cover events outside of regular school time and PARTICIPATE IN YEARBOOK FUNDRAISERS*

## ENGLISH

2101 ENGLISH 9  
Credit: 1.00

Grade 9

English 9 is a *fundamentals of writing* course aligned to the Pennsylvania Academic Standards. It is designed to include the writing of various forms and functions of narrative, informational, and persuasive compositions. Students will improve the effectiveness of their writing by studying focus, organization, content, style, and conventions. Students' work will then be showcased in a portfolio. Romeo and Juliet by Shakespeare and The Odyssey by Homer will be studied in a reading-writing workshop approach.

2102 ENGLISH 9 HONORS  
Credit: 1.00

Grade 9

English 9 Honors is a more advanced writing course aligned to the Pennsylvania Academic Standards including the various forms and functions of narrative, informational, and persuasive compositions aligned to the Pennsylvania Academic Standards. Much of the student writing involves critical essays written in response to class seminars. This includes Great Expectations by Charles Dickens and The Merchant of Venice by William Shakespeare in addition to a more in-depth study of Romeo and Juliet by William Shakespeare and The Odyssey by Homer. Students read, discuss, interpret, and write at a much faster pace. An advanced vocabulary program is part of the course. Students' work will be showcased in a portfolio.

2104 ENGLISH 10  
Credit: 1.00

Grade 10

This course is designed to further enhance the students' writing skills, as well as give them opportunities to apply those skills based on the literature covered in class and writing prompts. In addition, the study of vocabulary, mechanics, and usage will be incorporated into the readings that will be covered including poetry, the novel, and short stories. The purpose of this course is to prepare students to handle communication skills in the world today. All of the objectives in the course are geared to the reading, writing, speaking and listening section of the Pennsylvania Academic Standards.

2105 ENGLISH 10 ADVANCED  
Credit: 1.00

Grade 10

The students in this course will build on and apply essay-writing skills to informative and persuasive essays. These skills will also be applied to analyzing novels as well as drama. A twenty short story project is included that requires a summary of story lines, interviewing characters, and rewriting story endings. Research skills will be introduced and applied to literature based upon the events occurring during World War I through World War II. Poetry techniques will be introduced and poems will be analyzed for those techniques. Grammar and mechanics will be reviewed and applied through each vocabulary unit. All of the objectives in the course are geared to the reading, writing, speaking, and listening section of the Pennsylvania Academic Standards.

2106 ENGLISH 10 HONORS  
Credit: 1.00

Grade 10

Advanced writing skills acquired in previous honors courses will be applied to persuasive and informative writing prompts. Students will also write critical response essays for novels including two novels for independent reading. The course also includes a twenty-five short story project in which literary criticisms, research on the author, and application of elements of short stories are required. Critical analysis will be applied to different styles of poetry including dramatic, narrative, free verse, and sonnets. Students will be expected to create web-generated projects such as speeches and graphing of information as it applies to various texts. Research skills will further be applied to the career paper required for the class. Grammar and mechanics are reviewed on an as-needed basis. All of the objectives in the course are geared to the reading, writing, speaking and listening section of the Pennsylvania Academic Standards.

2108 ENGLISH 11  
Credit: 1.00

Grade 11

English 11 is designed to prepare students with basic reading and writing skills to enter the job market, the armed services, or a technical or two-year school with competence in reading, writing, and speaking. The curriculum is aligned with the Pennsylvania Academic Standards which focus on the improvement of reading independently and critically; reading, analyzing and interpreting literature; writing persuasive and informative pieces including the research paper; and public speaking in both formal and informal situations. All genres of American writing will be studied.

2109 ENGLISH 11 ADVANCED  
Credit: 1.00

Grade 11

English 11 Advanced is designed to prepare those students who plan to further their education for the writing and reading requirements they will encounter. Areas of preparation include reading, writing, speaking and listening as aligned with the reading, writing, speaking and listening Pennsylvania Academic Standards. The reading selections include American works of note including fiction and non-fiction, poetry, and drama. Vocabulary for the SAT as well as formal vocabulary lessons and words from the literature studied is emphasized. Writing includes persuasive and informational prompts to prepare for the PSSA as well as complex informational and persuasive pieces and a mandatory research paper.

2110 ENGLISH 11 HONORS  
Credit: 1.00

Grade 11

English 11 Honors is a course which emphasizes the critical reading of major works in American literature. It is designed for advanced 11th grade students to acquaint them with the methodological procedures of criticism, both literary and textual. Students in this course must be capable of completing demanding work independently. Extensive reading, oral presentations, in-depth discussion and high caliber writing are skills expected. Unabridged primary texts and critical reviews are the basis for seminars and critical essays. The curriculum is aligned with the Pennsylvania Academic Standards in reading, writing, speaking, and listening.

2112 ENGLISH 12  
Credit: 1.00

Grade 12

English 12 is designed for students with basic reading and writing skills as determined by the PSSA, as well as teacher recommendation and student interest. The curriculum aligns with the reading, writing, speaking, and listening Pennsylvania Academic Standards with focus on improving student achievement of the Academic Standards. This is partly a world literature survey course using a few selected works from Prentice Hall Literature, World Masterpieces and a reading and writing workshop approach to promote a lifelong interest in reading and basic competency in writing. The curriculum also includes one novel, weekly vocabulary units, several speeches and an extensive research project on a topic of choice. The purpose of this course is to prepare students to enter the world of work and to function at a competent level in reading, writing, and speaking.

2113 ENGLISH 12 ADVANCED  
Credit: 1.00

Grade 12

English 12 Advanced is designed for students with proficient reading and writing skills as determined by the PSSA, as well as teacher recommendation and student interest. The curriculum aligns with the reading, writing, speaking, and listening Pennsylvania Academic Standards on a 12th grade level. This is a world literature survey course using works from Prentice Hall Literature, World Masterpieces as the primary textbook. The curriculum also includes Brave New World and Macbeth. After in-depth seminars analyzing selected works for their literary devices, elements, and impact on society, students write three to five page critical analysis papers on the major works studied. Students also write a six to ten page research paper on a topic of choice. The purpose of this course is to prepare those students who plan to attend college for the writing and reading requirements they will encounter.

2114 ENGLISH 12 HONORS  
Credit: 1.00

Grade 12

English 12 Honors is designed for students with advanced reading and writing skills as determined by the PSSA, teacher recommendation, and student interest. The curriculum aligns with the reading, writing, speaking, and listening Pennsylvania Academic Standards on a post-secondary level. Unabridged primary texts and critical reviews are the basis for in-depth discussion and written assignments. The curriculum includes seven novels, Pride and Prejudice, Brave New World, Frankenstein, The Stranger, Siddhartha and Wuthering Heights; seven plays, Hamlet, Macbeth, Oedipus Rex Oedipus at Colonnus, Antigone, Waiting for Godot and The Importance of Being Earnest; and a collection of poems from Norton's Anthology. After in-depth seminars analyzing the work for its literary devices, elements and impact on society, students write a three to six page critical analysis paper *for* most of the texts. Students also write a five to fifteen page research paper on a topic of choice.

## **FAMILY & CONSUMER SCIENCES**

2760 FAMILY & CONSUMER SCIENCES  
Credit: 1.00

Grade 9-10

A comprehensive course that offers a full introduction to the Family & Consumer Science curriculum, students will develop skills in applying basic academics, problem solving, decision making, creative and critical thinking. Areas such as self-concept, sewing, clothing construction, consumer issues, financial planning, childcare, foods and nutrition are explored.

2764 CHILD DEVELOPMENT  
Credit: 1.00

Grades 10-12

Students study child development from prenatal stages until school age. Practical experience is gained through working with preschool children in a school environment. Child psychology and methods of parenting are studied while the students obtain real life experience with an infant simulator. An infant simulator is required to be used by each student.

2761 FOODS & NUTRITION I  
Credit: 1.00

Grades 10-12

Students in Foods & Nutrition I prepare food items according to various units of study. Students work in small groups and then sample and evaluate their products. Proper nutrition, good meal planning and careful food buying habits are stressed. Students design a plan to set up their own kitchen with the resources they need for the types of foods they plan to prepare.

2762 FOODS & NUTRITION II  
Credit: 1.00

Grades 11-12

Students are involved with more complex food preparation. There is extensive student participation in recipe selection and experimental foods work. Correct etiquette and social behavior, as well as the art of serving attractive and nutritious food is stressed.

## **FOREIGN LANGUAGES**

2501 FRENCH I  
Credit: 1.00

Grades 9-12

French I builds oral proficiency using mainly the present tense. Students will be able to conjugate verbs, utilize various grammar structures and build a working vocabulary. Listening skills and reading skills are also developed. Some cultural similarities and differences among the United States, Canada, and France are also emphasized to enhance student appreciation for other cultures (literature, food, holidays, customs, etc.). Students will converse at a minimum level of proficiency.

2502 FRENCH II  
Credit: 1.00

Grades 10-12

French II is a continuation of French I. Reading, grammar, listening, and vocabulary become more challenging at this level. Cultural lessons are interspersed throughout the various lessons. Students begin to move from a minimum level to an intermediate level of oral proficiency.

2503 FRENCH III  
Credit: 1.00

Grades 11-12

French III is a continuation of French II. Additionally, vocabulary and grammar structures are introduced, as well as polishing of previously learned concepts. Students will read plays, short stories, poems and essays to synthesize previously learned material. Oral proficiency will be at an intermediate level.

2504 FRENCH IV  
Credit: 1.00

Grade 12

French IV is the continuation and completion of the previous courses in French. Oral proficiency, listening skills, grammar structures, and vocabulary terms are taught at an intermediate to advanced level.

2506 SPANISH I  
Credit: 1.00

Grades 9-12

Spanish I builds oral proficiency using mainly the present tense. Students will be able to conjugate verbs, utilize various grammar structures and build a working vocabulary. Listening skills and reading skills are also developed. Some cultural similarities and differences among the United States, Latin America, and Spain are also emphasized to enhance student appreciation for other cultures (literature, food, holidays, customs, etc.). Students will converse at a minimum level of proficiency. Students will work towards the Pennsylvania Academic Standards for foreign language: communication, culture, and community.

2507 SPANISH II  
Credit: 1.00

Grades 10-12

Spanish II is a continuation of Spanish I. Reading, grammar, listening, and vocabulary become more challenging at this level. Cultural lessons are interspersed throughout the various lessons. Students begin to move from a minimum level to an intermediate level of oral proficiency.

2508 SPANISH III  
Credit: 1.00

Grades 11-12

Spanish III is a continuation of Spanish I and II. Additionally, vocabulary and grammar structures are introduced, as well as polishing of previously learned concepts. Students will read plays, short stories, poems, and essays to synthesize previously learned material. Oral proficiency will be at an intermediate level.

2509 SPANISH IV  
Credit: 1.00

Grade 12

Spanish IV is the continuation and completion of the previous courses in Spanish. Oral proficiency, listening skills, grammar structures, and vocabulary terms are taught at an intermediate to advanced level.

## **HEALTH/PHYSICAL EDUCATION**

2801 PHYSICAL EDUCATION 9/10  
Credit: 1.00

Grades 9-10

The course is divided into three subjects, aquatics, health, and movement in the gym.

**Health** - The students will learn how to be physically active. A fitness program based on the components of fitness will be designed and the students will learn how to eat nutritiously and how to maintain a healthy weight. Students will be given the tools to pursue an active lifestyle through incorporating all the skills learned in class.

**Aquatics 9/10** – The class is designed to provide the student with intermediate level swimming skills. Each student will be instructed in all swimming strokes, surface dives, turns, survival float, treading water, PFD use, throwing and reaching assists, rescue breathing, and other safety techniques. Students will have an opportunity to learn a lifetime sport as well as be educated in necessary skills to be in and around water. Each student will have the opportunity to enhance his or her skills through individual and group socialization activities. Through this class, students will be able to increase their fitness level by engaging in cardiovascular activity. All physical activities taught/participated in will be developmentally appropriate and support achievement of physical/personal fitness goals.

**Gym Activities** - All students will be given a pre and post-fitness assessment (fitnessgram). Through the use of Physical Best Activities, the students will enhance their knowledge of the lessons taught in health class. The students will set long and short-term goals based on their fitness assessment. Additional mini units in team sports to include soccer, football, basketball, team handball, Frisbee games, tennis and lacrosse will be used to incorporate the fitness concepts.

2803 HEALTH & PHYSICAL EDUCATION 11/12  
Credit: 1.00

Grades 11-12

The grade 11/12 health & physical education course will continue to develop skills that have been taught in previous years. An emphasis will be placed on providing adequate opportunities to enable the student to develop and display proper team and socialization skills. All physical activities taught/participated in will be developmentally appropriate and support achievement of physical/personal fitness goals. The health topics will include mental/emotional health, non-communicable/communicable disease, body systems, decision making/goal setting skills, alcohol/drugs, HIV/AIDS and consumerism.

\*At least thirty (30) minutes of personal physical fitness will be included in each physical education class. Some classes will be devoted 100 percent to fitness in which students will participate at fitness stations.

## **MATH**

2303 PRE-ALGEBRA  
Credit: 1.00

Grade 9

This course is open to students by recommendation only. It is designed to prepare students for Algebra I. Concepts to be mastered include operations with whole numbers, decimals, and fractions. This course gives the student an opportunity to build upon prior knowledge of integers, ratios, proportions, scale, data analysis, statistics, and the coordinate plane in order to solve equations. Students will also be introduced to solving and graphing linear equations and inequalities, slope, and applications of algebra in real-world situations.

2304 ALGEBRA I  
Credit: 1.00

Grades 9-12

This course is a student's introduction to high school level mathematics. Successful completion of this course is a prerequisite for advancement into any higher-level mathematics courses. The course includes, but is not limited to, such topics as:

- Application of the four basic operations to the set of real numbers and the set of polynomial expressions
- Solution and graphing of linear equations, inequalities, and systems of linear equations and inequalities
- Solution of word problems and detailed study of problem solving techniques
- Use of real numbers as exponents

2305 ALGEBRA II  
Credit: 1.00

Grades 9-12

This course builds on topics learned in Algebra I with an emphasis on operations with polynomials. The students' knowledge of solving equations and systems of equations are also mastered. This course includes operations with rational expressions and introduction to roots, complex numbers and quadratic functions. Students are asked to problem solve and are required to apply algebra to real-world situations.

2306 GEOMETRY  
Credit: 1.00

Grades 9-12

Geometry (a description of physical space) is the study of properties preserved by certain transformations; namely, isometries (shape and size) and similarity transformations (shape). Geometry in a plane along with solid geometry will be covered. Triangle congruence postulates are included.

2313 PROBABILITY AND STATISTICS  
Credit: 1.00

Grades 10-12

The purpose of the course is to expose students to the theory and applications of probability and statistics. Probability is the study of chance and prediction. Statistics is the study of data expressed in quantitative form. Probability and statistics are useful in making informed decisions in everyday life and are used extensively in the

natural and social sciences, medicine, business, and other areas. The curriculum of this course resembles an introductory college course in probability and statistics.

2308 TRIGONOMETRY/PRE-CALCULUS

Credit: 1.00

Grades 10-12

This is a course designed to prepare students for the rigors of calculus. The students will summarize and review techniques of algebra, analytical geometry and trigonometry. Special emphasis is put on the trigonometry aspect of the course. Special emphasis is also placed on the topic of functions; including but not limited to circular functions and trigonometric functions. Sequences and series, both algebraic and geometric will also be discussed. Vectors in a plane, converting from rectangular form to polar form, and graphing in polar form are other topics that are covered. Exploring the usage of a graphing calculator is also an indirect result of this course.

2309 CALCULUS I HONORS

Credit: 1.00

Grades 10-12

This course will expose the college-bound student to the rigors of calculus and analytic geometry. The purpose is to better prepare the academic student for work encountered in pure and applied science curriculums at institutions of higher learning. Differentiation and integration are major cornerstone topics of this course; functions, relations, and graphing are also discussed throughout the course. Many applications of skills to problem solving are also involved in the course work.

2310 CALCULUS II HONORS

Credit: 1.00

Grades 11-12

This course will allow students to extend their mathematical knowledge, and to further prepare those who are college bound to the rigors of calculus. This will further enhance the academic student for work encountered in, but not limited to, fields in pure and applied science at higher level institutions of learning. The purpose of this class is not only to expand on topics in Calculus I Honors, but also to expose students to additional topics including techniques for integration, an in-depth study of mathematical series, and more applications of calculus.

**MUSIC**

2648 CONCERT CHOIR

Credit: 1.00

Grades 9-12

Concert choir is a performing organization in which students will learn the basic techniques of singing including quality tone production, proper breathing techniques and posture, and stage etiquette. Students will perform in three concerts throughout the year including the holiday and spring concert. Students will be exposed to a variety of stylistic differences in choral music and learn the essentials of performing and understanding those styles. The class is open to any student who is interested in learning how to sing in a quality choral ensemble. Classes meet on an intensive A/B schedule\* for a **full year**.

2650 STAGE CRAFT, SOUND & LIGHTING

Credit: 1.00

Grade 9-12

Theory and practice of set construction, lighting design, and sound design for shows and concerts. Student will learn all technical aspects of theatre and use what they have learned by applying them to shows and concerts.

2654 MARCHING & CONCERT BAND

Credit: 1.00

Grades 9-12

Senior High Band is a course that provides an opportunity for wind and percussion players to perform and become acquainted with the available literature for the band. Membership is open to students in Grades 9 through 12 by director approval only. Outside of school performances are a required part of this class. Four concerts are prepared

each year with mandatory attendance. Outside practice is required. Classes meet on an intensive A/B schedule\* for a **full year**. Students must be able to play an instrument at a proficient level. An audition may be required.

2653 VOCAL ENSEMBLE  
Credit: 1.00

Grades 10-12

Vocal Ensemble is an organization in which students perform and become familiar with several styles of singing and dancing. The group will focus study on popular music from today and the past decades, jazz, and Broadway. Emphasis will be placed on quality singing and performance techniques on an intensified level. Students will become comfortable performing in many different situations. Several performances will be scheduled throughout the year, some of which will be outside of school. After school practice will also be scheduled three times per month. Students should take at least one year of Concert Choir prior to signing up for the class, and may need to audition for the instructor.

\* Concert Choir and Marching & Concert Band are full year A/B day courses that are scheduled opposite of full year A/B Health & Physical Education class. These courses **cannot be divided into semester-long courses**.

## SCIENCE

2401 GENERAL SCIENCE  
Credit: 1.00

Grade 9

General Science 9 is a required course for all students in the secondary school science *Pathway A*. It introduces the students to basic concepts relating to the world of science. Students examine changes in materials upon mixing, heating, freezing, and dissolving and learn how to observe and measure results. The students will study the atomic theory and its relationship to matter, its structure, and its properties. Additionally, students will investigate concepts in the physical world, including earth's processes. The relationship between that physical world and the living world will be a central theme throughout.

The course is laboratory centered with students spending approximately one-third of the time discovering basic physical science concepts through laboratory activities. A textbook and many audio-visual materials are used to supplement the program. The course involves the application of the scientific method. Students are required to keep a notebook containing all notes and other class materials.

2404 BIOLOGY  
Credit: 1.00

Grades 9-10

Biology is a comprehensive course designed to provide students with an understanding of and an appreciation for the living world around them. A heavy emphasis is placed on conceptual understanding and development of a "big picture" view of how living systems are interconnected. The course builds on strong science process skills by utilizing many laboratory activities including the study of prepared micro-slides, prepared specimens of plants and animals, as well as models and simulations of life processes. Students are required to keep a binder containing notes and laboratory activity sheets.

2407 CHEMISTRY  
Credit: 1.00

Grades 10-12

This course fulfills the chemistry requirement in the science sequence for students. The course will expand on the student's understanding of the nature of science and introduce the student to the basic concepts of chemistry - the science of atoms, molecules, and materials. It is laboratory activity centered with roughly twenty-five percent of class time spent on "discovering" or applying basic chemical concepts. Students are required to keep a binder containing their notes and work in and out of the lab. The intention is that the student leaves the course with the ability to think like a chemist and see how important and how interesting chemistry is.

2412 PHYSICS  
Credit: 1.00  
Grades 10-12

This course fulfills the physics requirement in the student's science sequence. While the many branches of physics all deal with the workings of the world and universe around us; this course will partially cover the fields of mechanics, thermodynamics, and nuclear physics in concept and reduce many of the selected concepts to the mathematical rules of physics. The nature of science is fully integrated into this course, which will also incorporate laboratory activities with roughly twenty-five percent of class time spent on "discovering" or applying basic physics concepts.

2416 PHYSICAL SCIENCE II  
Credit: 1.00  
Grades 11-12

Physical Science II may be selected by students in grades 11 or 12 to fulfill their physics requirement. It is recommended for the non-college bound student or as a primer before Physics for the college-bound student. The Physical Science course is designed to enable the student to develop a general knowledge of the concepts, vocabulary and applications of science. The student will leave the activity-oriented course with a basic knowledge of the science field and technologically oriented world.

2419 ENVIRONMENTAL SCIENCE  
Credit: 1.00  
Grades 11-12

This course is designed to enhance the understanding of man's relationship and influence on the environment. This is accomplished through a detailed study of plant and animal communities, habitats, and populations. Other areas of emphasis include the major biomes of the earth, food chains, conservation of soil, energy, and natural resources; and wise usage of land and water. The course is laboratory, project and discussion oriented with a focus on current environmental issues. Research, using resources such as the school library, visual media and the Internet, will be used on a regular basis. The course and the textbook parallel the Pennsylvania Environmental Standards.

2406 AP BIOLOGY  
Credit: 1.00  
Grades 11-12

The AP Biology course will provide students with an opportunity to appreciate science as a process and to develop a conceptual understanding of modern biological trends. Students in this course will explore exciting advances in biochemistry, biology, genetics, and physiology as well as reinforce their knowledge of basic biological concepts and the scientific process. This course is laboratory centered with a focus in developing experience in scientific inquiry aimed at improving critical thinking skills in application to unifying themes in biology. AP Biology is the equivalent of an introductory college biology course. This course is highly recommended for science students of exceptional ability and is designed for students planning to study one or more branches of science at the college level.

2410 AP CHEMISTRY  
Credit: 1.00  
Grades 11-12

The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first year of college. Students attain a depth of understanding of fundamentals of chemistry, matter, and its interactions, and a reasonable competence in dealing with chemical problems. They will be introduced to the areas of organic, inorganic, biological, physical, nuclear, and electrochemistry. The course is laboratory-based, and it contributes to the development of the students' abilities to think clearly and to express their ideas, orally and in writing, with clarity and logic. The course is highly recommended for students planning to study science and mathematics at the collegiate level.

2413 AP PHYSICS (Available 2011-2012)  
Credit: 1.00  
Grade 11-12

The AP Physics course is designed to be the equivalent of the general physics course usually taken during the first year of college. AP Physics is highly recommended for any student planning to attend college or medical

technology school. It reviews and expands upon the main principals of physics while striving to develop the student's conceptual and problem solving ability.

### **SOCIAL STUDIES REQUIRED SEQUENCE**

2202 GEOGRAPHY/ECONOMICS  
Credit: 1.00

Grade 9

The geography part of this course is designed to develop and enhance the geography skills of the students. It will build on the geography skills developed in grades 7 and 8. Students will work extensively with map making, building their knowledge of countries, their capitals, culture and topography. Students will also develop their computer skills as they incorporate using the internet into their learning of geography. In the economics part of the course, students will learn basic economic ideas like supply and demand, scarcity and choice, opportunity cost, the Federal Reserve System, etc. Comparisons of various economic systems will also take place.

2203 GEOGRAPHY/ECONOMICS HONORS  
Credit: 1.00

Grade 9

This class will cover the same content areas as the regular class; however, the economics section will also cover the areas of economic performance, sources of capital, U.S. fiscal policy, and international trade issues. Additionally, both the economics and geography section of this honors class will place greater emphasis on critical thinking activities, class discussions, and various other team projects. The students will also be asked to discuss in more detail the relationship of what they are learning to the current events of the day. This course will be a springboard into the other honors social studies courses.

2204 WORLD HISTORY II  
Credit: 1.00

Grade 10

This course is designed to explore the major people, ideas, and events that have shaped the global community throughout history, beginning with the Renaissance and continuing through modern times. The cultural, political and economic histories of Europe, Asia, Africa, and the Arab world will be studied in detail. This course will allow students to develop an understanding of how the events of the past, including major wars and political movements, influence current events. The knowledge gained in this course will provide students with a solid foundation of modern world history and will serve as a building block for understanding issues facing the world today.

2205 WORLD HISTORY II HONORS  
Credit: 1.00

Grade 10

World History II Honors focuses on analyzing and evaluating historical events, as well as exploring the diverse cultural, political, economic and technological developments of the time period from the 1450s to modern day. While the same material will be covered in this course as is covered in World History II, the honors class places emphasis upon developing historical and critical thinking skills in students. Students will be challenged through debates, class discussions, and various other projects, which will allow them to demonstrate their knowledge and form opinions on world issues. In addition, students will be encouraged to make connections between historical events and those, which are currently facing the international community. The knowledge gained in this course will provide students with a secure foundation for higher-level history courses and an understanding of the influence of world events on their lives.

2207 AMERICAN HISTORY II  
Credit: 1.00

Grade 11

This course continues the journey through our country's history started in American History I, beginning with the post Civil War era and progressing through the modern history of the nation. In accordance with Pennsylvania State Standards for history, emphasis is placed upon the major political, economic, cultural and technological developments, which defined the United States during this time period. Students will gain a basic understanding of the nation's current position in the world by studying the laws, reforms, leaders, and events that shaped it. The knowledge gained in this course will serve as a solid foundation for the twelfth grade American Government course.

2208 AMERICAN HISTORY II HONORS  
Credit: 1.00

Grade 11

This course is designed to analyze the major political, social, economic, cultural and technological developments experienced in the United States from the period of time after the Civil War through the present. Students will gain a concrete understanding of the political and cultural movements of this era and of the events that have shaped the current situation of the United States. Emphasis will be placed upon student evaluation of the events in American history, as well as upon recognizing the opportunity to analyze the foreign and domestic policies of the United States throughout its history. Students will be challenged to commit themselves to a higher level of thinking through debates, class projects, research papers and other various applications. This course will not only prepare students for twelfth grade American Government and higher level education, but it will also provide a solid understanding of the influence of U.S. history, while developing personal views and stances on various topics.

2215 AMERICAN GOVERNMENT  
Credit: 1.00

Grade 12

An introductory course on the essentials of American national government and Pennsylvania state government that satisfies the state requirements for instruction in the constitutions of the United States and the State of Pennsylvania. This course will serve as an introduction to the structure, process and functions of modern American Government. The purpose of this course is to familiarize students with the basic principles of the American system of government and its impact on people and society.

2214 AMERICAN GOVERNMENT HONORS  
Credit: 1.00

Grade 12

This course is an in-depth study on the essentials of American national government and Pennsylvania state government that satisfies the state requirements for instruction in the constitutions of the United States and the State of Pennsylvania. This course will require students to compare and contrast historical documents, analyze and critique the structure, process and functions of modern American Government, and complete a detailed analysis of American foreign policy as it relates to modern American society through detailed class discussions, readings, and seminars. Student will study comparative economics and governments. The purpose of this course is for students to have a complete understanding of American government and politics as they become aware of the principles of the American system of government and its impact on people and society.

### **SOCIAL STUDIES ELECTIVES**

2217 MODERN WORLD ISSUES  
Credit 1.00

Grades 11-12

The course will study the events that influence the world today. It will also delve into the background and history that has lead to these current situations. Some of the topics to be discussed will be: terrorism, science and technology, the environment, civil wars and genocide.

2218 PSYCHOLOGY OF HUMAN BEHAVIOR  
Credit 1.00

Grades 11-12

The course will study the relationships of the human nervous system, heredity and environment in shaping human behavior. Various theories of personality development, personality assessment and personality types will be explored, especially as they relate to mental illness and mental health. The psychological development of children will also be covered.

2219 CRIMINAL JUSTICE  
Credit 1.00

Grades 11-12

This course is designed to give students a background into the components of the criminal justice system. The foundations of the law and the Constitution will be described followed by the concept of law and crime. Students will delve into the judicial process and how our American justice system functions. There will also be an emphasis on evaluating current issues facing the system as well as women and minorities in the system.

## TECHNOLOGY EDUCATION

2701 ACTIVITIES IN TECHNOLOGY  
Credit: 1.00

Grade 9

Activities in Technology will allow the student to obtain the hands on experience needed to reinforce such disciplines as technology, engineering, and mathematics. Activities in Technology will provide the student with the understanding of how technology and academics integrate. The student will complete various hands-on projects that relate to problem solving and processes that take place in the real world. All grade 9 students are enrolled in this course. Can be used to satisfy the general elective requirements.

2703 WOOD TECHNOLOGY I  
Credit: 1.00

Grades 10-12

This course offers instruction in the safe use and care of selected hand tools and basic woodworking machines. Emphasis is placed upon proper selection of woods and the efficient use of materials. A study of wood joinery and project design is a part of this course.

2704 WOOD TECHNOLOGY II  
Credit: 1.00

Grades 11-12

This is an advanced course in wood dealing primarily with furniture and cabinet design and construction. More complex elements of design, joinery and construction are stressed.

2705 ADVANCED WOOD TECHNOLOGY  
Credit: 1.00

Grades 11-12

Advanced wood is an in-depth study of wood working techniques. The purpose is to allow a junior or senior student who has completed most technology education electives to specialize in a wood working area of his/her choice. Wood Technology I & II precedes this course. Math aptitude and competency is also required. All students must have instructor recommendation.

2711 COMPUTER AIDED DESIGN AND DRAFTING I (CADD I)  
Credit: 1.00

Grades 9-12

This course introduces students to Computer Aided Design and Drafting (CADD). Students will learn skills in freehand drawing, spatial relations, and computer-based sketching and modeling. Basic math skills are exercised regularly.

2712 COMPUTER AIDED DESIGN AND DRAFTING II (CADD II)  
Credit: 1.00

Grades 10-12

This course teaches students to create orthographic multi-view drawings for mechanical objects using Pro/Engineer Wildfire 4.0. Students also learn how to effectively use 3-D computer modeling to design and create mechanical objects.

2713 ADVANCED CADD  
Credit: 1.00

Grades 11-12

Advanced CADD is an in depth study of CADD. The purpose is to allow a junior or senior student who has completed most technology education electives to specialize in a drafting area of his/her choice (i.e. mechanical drawing, architectural drafting, etc.). CADD I & II precedes this course. Math aptitude and competency is also required. All students must have instructor recommendation.