



Interboro High School  
*Program of Studies*  
2017-2018

*Interboro School District provides a challenging and supportive learning environment for all students to succeed academically, socially, and emotionally while becoming college and career ready citizens within a global community.*

Revised date: 02/06/2017

**High School Administration**

Ryan Johnston – Principal  
Ryan Snyder – Assistant Principal  
Shawn Conti – Assistant Principal  
Ed Kloss – Athletic Director/Assistant Principal

**Guidance Department**

Brian Hines - A – G  
Michelle McEvoy- H - N  
Meghan Magee- O – Z  
Jen Fanning – Special Ed. 10th &12th  
Marcy West - Special Ed. 9th & 11th

**Vision of the Interboro School District**

Curriculum	<ul style="list-style-type: none"><li>• All students will receive high quality, standards based curriculum that promotes critical thinking skills and high expectations</li><li>• All students will have an understanding of what they are learning and why they are learning it</li></ul>
Instruction	<ul style="list-style-type: none"><li>• All educators will deliver high quality and engaging instruction tailored to students specific learning needs</li><li>• All educators will utilize research based instructional practices to ensure maximum success for all students</li></ul>
Assessment	<ul style="list-style-type: none"><li>• Student progress and growth will be measured through multiple and varied assessments that are aligned with standards</li><li>• Student performance will guide instructional practice, curriculum design and procedures</li><li>• As confident learners, all students will demonstrate creativity, think critically, and problem solve</li></ul>
Environment	<ul style="list-style-type: none"><li>• All students and staff will thrive in a safe and caring environment that fosters confidence and promotes academic, social, and emotional growth</li><li>• The learning environment will be characterized by positive, respectful interactions with expectations established for all</li></ul>

## **TABLE OF CONTENTS**

<a href="#"><u>Number of Courses</u></a> .....	4
<a href="#"><u>Graduation</u></a> .....	4-6
<a href="#"><u>Promotion Requirements</u></a> .....	6
<a href="#"><u>Schedule Changes</u></a> .....	6
<a href="#"><u>Work Study</u></a> .....	7
<a href="#"><u>Summer Reading/Math</u></a> .....	7
<a href="#"><u>Class Rank</u></a> .....	8
<a href="#"><u>Course Weighting</u></a> .....	8-10
<a href="#"><u>Art</u></a> .....	11
<a href="#"><u>Business</u></a> .....	12-13
<a href="#"><u>Computers/Information Technology</u></a> .....	13-15
<a href="#"><u>Family and Consumer Sciences</u></a> .....	16-18
<a href="#"><u>English Language Arts</u></a> .....	19-24
<a href="#"><u>World Language</u></a> .....	25-28
<a href="#"><u>Mathematics</u></a> .....	29-36
<a href="#"><u>Music</u></a> .....	37-38
<a href="#"><u>Physical Education/Health</u></a> .....	39-41
<a href="#"><u>Science</u></a> .....	42-47
<a href="#"><u>Social Studies</u></a> .....	48-55
<a href="#"><u>Technology</u></a> .....	56-58
<a href="#"><u>Special Education</u></a> .....	59-62
<a href="#"><u>Vocational Programming/DCCC</u></a> .....	63-68

## NUMBER OF COURSES

Underclassmen are required to carry at least 6 credits. Seniors are required to carry a minimum of 5 credits.

## GRADUATION

Graduation requirements at Interboro High School include completion of 23 credits. In addition, students are required to complete an approved Senior Project.

### Requirements through the 2016-2017 school year

- Students are required to earn a total of **23 credits** to graduate from the Interboro High School. Successful course completion and attainment of the prescribed credits indicated will signify that graduates from the Interboro High School have demonstrated proficiency in planned instruction aligned with academic standards in the following areas: Language Arts; Mathematics; Science and Technology; Social Studies; Environment and Ecology; Arts and Humanities; Health and Wellness; and Family and Consumer Sciences. Planned instruction may be provided as a separate course or as an instructional unit within a course or other interdisciplinary instructional activity.

<u>Subject</u>	<u>Credits</u>
<b>English</b>	4
<b>Social Studies</b>	4
<b>Science</b>	3
<b>Mathematics</b>	3
<b>Physical Education</b>	1
<b>Health</b>	0.5
<b>Electives</b>	
✓ <b>Technology</b>	0.5
✓ <b>Arts &amp; Humanities</b> <i>Choose Elective Courses from the following areas: World Languages; Art; Music; English; Social Studies</i>	2
✓ <b>Practical Arts/STEM</b> <i>Choose Elective Courses from the following areas: Industrial Technology; Family &amp; Consumer Sciences; Science; Business; Math</i>	1
✓ <b>Other</b> <i>Student can choose electives from any department to satisfy remaining elective requirement</i>	4
<b>TOTAL</b>	<b>23 Credits</b>

- Complete a **culminating project**, the purpose of which is to assure that students are able to apply, analyze, synthesize and evaluate information and communicate significant knowledge and understanding.

## Keystone Examinations

On Feb. 3<sup>rd</sup> 2016, Governor Tom Wolf signed **Senate Bill 880** into law, delaying the requirement for high school students to reach proficiency on the three Keystone Examinations (Algebra I, Literature, and Biology) in order to graduate. With this new legislation, passing the three Keystone Examinations for graduation is a requirement beginning with the Class of 2019 and below. The aforementioned graduation requirements above reflect this change in legislation. Importantly, the following information is important to note:

- Over the next six months (February 2016 – August 2016) the Pennsylvania Department of Education will investigate alternatives in addition to the use of Keystone Examinations as a graduation requirement. If and when and further changes are made to legislation that impacts graduation requirement, Interboro student and families will be informed in a timely fashion.
- Per state legislation, students are required to take the Keystone Examination following the completion of the identified Keystone course.
- Students' scores on the Keystone Examinations will continue to be reported on the School Performance Profile for the High School and be used for federal accountability measures.
  - ✓ ***The Keystone Exams*** are state mandated end-of-course assessments designed to evaluate proficiency in academic content. Beginning with the Class of 2019, students must demonstrate proficiency on the Algebra I, Literature, and Biology Keystone Exams to graduate. Students will be offered multiple opportunities to take the Keystones throughout their high school career. The Keystone Exams will be administered three times each year—winter, spring, and summer. The students' results are banked until their junior year for accountability purposes and until their senior year for graduation purposes. Additionally, students who take a Keystone Exam and do not score Proficient will have the opportunity to receive supplemental instruction and re-take the exam. Student scores on the Keystone Exams will affect student placement, as noted in the prerequisites listed for specific courses.
  - ✓ ***Retaking the Exam.*** A student shall be permitted to retake any Keystone Exam, or Keystone Exam module, in which the student did not score proficient or above at the next available testing date, so long as the student has participated in a satisfactory manner in supplemental instruction. There is not a limit on the number of times a student who did not score proficient on a Keystone Exam is permitted to retake the Keystone Exam or Keystone Exam module. A student who has achieved a score of proficient or advanced on a Keystone Exam is not permitted to retake the exam.
  - ✓ ***Transcripts.*** Beginning in the 2016-2017 school year, the state-defined performance level (Advanced, Proficient, Basic, Below Basic) demonstrated on the Literature, Algebra I, and Biology Keystone Examinations will be included on student transcripts. The information presented on a transcript must include the highest performance level demonstrated by a student on the associated Keystone Exam or project-based assessment at the time the transcript is produced.

## **PROMOTION REQUIREMENTS**

For a student to progress from grade to grade, a student must accumulate the following credits:

10<sup>th</sup> Grade - minimum 4.5 credits

11<sup>th</sup> Grade - minimum 10.5 credits

12<sup>th</sup> Grade - minimum 16.5 credits

Seniors with 17 credits or less, must take a full 6.5 credits during senior year.

## **COURSE REQUESTS and SCHEDULING**

Students and parents are requested to be thoughtful and thorough in their selection of courses during the spring semester. The number of students electing a course and the availability of teachers will determine whether or not a course will be offered. Courses may not run without sufficient enrollment. All students are expected to continue in, and complete, the courses selected. Any student requesting an Advanced Placement (AP) course must understand there is an expectation regarding the willingness to remain committed to the course and the expectation of taking the exam.

## **SCHEDULE CHANGES**

Adequate schedule planning for students, teachers, and classroom space can be completed only when school officials can consider student schedule requests to be final and binding. There are times when a change in this schedule request is desired. When this happens, a conference with a guidance counselor is required. Guidance counselors are available every Wednesday at Interboro High School during the summer. Parents should be involved with this conference in order to assist the student and counselor to arrive at a reasonable decision. Therefore, all schedule changes will be made at the discretion of the Schedule Adjustment Committee.

Courses dropped before the end of the first marking period will not show on the report card of the student. Courses dropped after this date will show the earned grades to date and be reflected as a WP (withdrawn passing) or WF (withdrawn failing) for the final grade and zero credit for the year. The consequences for withdrawing from a course at a later date will be as follows.

If the course is changed before the end of the first marking period and is changed to a related course then the grade will transfer to the new course. Students transferring to an unrelated course will have the grade earned in the 2nd marking period also recorded as the 1st marking period grade.

Full year courses changed before the end of the second marking period to a related course will transfer the grade with the course. Student transferring to an unrelated course will receive a withdraw passing/withdraw failing grade for a course they are dropping. Credits are not received and this course will not be included in the GPA (grade point average), but will appear on the report card and official transcript as WP/WF.

## **DATA-SUPPORTED STUDENT PLACEMENT**

Administrators, counselors, and teachers will use a variety of data tools to place students in courses that match their learning needs. In addition to grades, state assessments, and teacher recommendations, school staff will use data from the State's Performance Value Added Assessment System [PVAAS]. Specifically, school staff will use PVAAS Projections to appropriately place students in the following content areas: English, Mathematics, and Science. A PVAAS projection is a more reliable indicator than a student's most recent test score because it does not rely on a single snapshot in time; rather, it includes a student's testing history across grades and subjects to project future performance. Importantly, PVAAS Projections help us look ahead and determine the probability of student success in a selected course.

## **WORK STUDY PROGRAM**

Students can also receive credit for legal work completed outside of the high school or for tutoring completed with a certified tutor. In addition, work-study programs can also be approved for seniors. Prior approval is required for any academic credit or work completed outside of the school setting. Students who have been approved for a work-study program will be assigned to an Interboro High School teacher for monitoring.

## **SUMMER READING LIST**

In promoting the importance of reading, the Interboro School District will continue to incorporate a summer reading program. The summer reading program encourages students in grades 9 - 12 to read books from an approved list. This list will be distributed to all students prior to leaving school in June. Copies will be kept on file at the high school and the four neighborhood schools, as well as local book stores and libraries.

The English Department will provide an assessment for students upon their return to school in September. We urge parents to encourage their children to read and learn all year round. Detailed information will be available at [www.interborosd.org](http://www.interborosd.org).

## **SUMMER MATH ASSIGNMENT**

In order to help students better retain information from the previous year and to help them to prepare for the year to come, the Interboro Math Department gives an appropriate summer assignment by course. Students will receive details regarding their assignment prior to the end of the school year. Detailed information will be available at [www.interborosd.org](http://www.interborosd.org).

## CLASS RANK

Interboro High School uses a weighted system for computing class rank. Courses in the core areas of English Language Arts, Mathematics, Science, and Social Studies have been assigned weighted numbers prescribed categories according to level of difficulty. The weighted number for each course was determined by comparing the planned course objectives.

## COURSE WEIGHTING

**The Interboro High School is transitioning to a new weighting system. Any impacts or changes to weighting are described below per graduating class.**

- The **Class of 2018** will not be affected by this change and will continue to follow the configuration directly below:

<b>Table of Course Weight Values Class of 2018</b>			
<b><u>Subject Area</u></b>	<b><u>AP/Honors (+10 weight)</u></b>	<b><u>College Prep (+5 weight)</u></b>	<b><u>Academic (+0 Weight)</u></b>
<b>Mathematics</b>	Honors Accelerated Alg. 1 Honors Geometry Honors Algebra 2 Honors Pre-Calculus AP Calculus AP Statistics Honors Calc II	CP Algebra 1 CP Geometry CP Algebra 2 CP Adv. Math CP Calculus CP Trigonometry CP Probability & Statistics	Pre-Algebra/Topics in Geometry Algebra 1 Geometry Alg. 2 Intermediate Alg. A & B Consumer Math
<b>English Language Arts</b>	Honors English 9 Honors English 10 Honors American Lit 11 Honors British Lit & Comp 12 AP English Lang. & Comp. AP English Literature	CP English 9 CP English.10 CP English 11 CP English 12	English 9 English 10 English 11 English. 12
<b>Science</b>	Honors Biology Honors Chemistry Honors Physics AP Physics AP Biology	CP Integrated Science CP Biology CP Physical Science CP Chem. CP Physics CP Earth & Space Further Studies Chem/Physics Adv. Biology/Anatomy Adv. Biology/Environmental	Integrated Science Biology Physical Science Earth & Space Allied Health I Allied Health II
<b>Social Studies</b>	Honors Multi-Cultures 9 Honors U.S. History I (10) AP European History AP World History AP U.S. History AP. Government AP Economics	CP Multi-Cultures 9 CP U.S. History (I) 10 CP U.S. History (II) 11 CP Government & Pol. 12	Multi-Cultures 9 U.S. History (I) 10 U.S. History (II) 11 Government & Pol. 12
<b>Electives</b>	AP Art AP Psychology		



- The **Class of 2019** will follow the weighting configuration directly below:

<b>Table of Course Weight Values</b>				
<b>Class of 2019</b>				
<b>Subject Area</b>	<b>AP (+10 weight)</b>	<b>Honors (+7 weight)</b>	<b>College Prep (+3 weight)</b>	<b>Academic (+0 Weight)</b>
<b>Mathematics</b>	AP Calculus AP Statistics Honors Calc II	Honors Accelerated Alg. 1 Honors Geometry Honors Algebra 2 Honors Pre-Calculus Honors Calculus (2017-2018)	CP Algebra 1 CP Geometry CP. Algebra 2 CP. Adv. Math CP Trigonometry CP Probability & Statistics	Pre-Algebra/Topics in Geometry Algebra 1 Geometry Alg. 2 Intermediate Alg. A & B Consumer Math
<b>English Language Arts</b>	AP English Lang. & Comp. AP English Literature	Honors English 9 Honors English 10 Honors American Lit 11 Honors British Lit & Comp 12	CP English 9 CP English.10 CP English 11 CP English 12	English 9 English 10 English 11 English. 12
<b>Science</b>	AP Physics AP Biology	Honors Biology Honors Chemistry Honors Physics	CP Integrated Science CP Biology CP Physical Science CP Chem. CP Physics CP Earth & Space Further Studies Chem/Physics Adv. Biology/Anatomy Adv. Biology/Environmental	Integrated Science Biology Physical Science Earth & Space Allied Health I Allied Health II
<b>Social Studies</b>	AP European History AP World History AP U.S. History AP. Government	Honors Multi-Cultures 9 Honors U.S. History I (10)	CP Multi-Cultures 9 CP U.S. History (I) 10 CP U.S. History (II) 11 CP Government & Pol. 12	Multi-Cultures 9 U.S. History (I) 10 U.S. History (II) 11 Government & Pol. 12
<b>Electives</b>	AP Art AP Economics AP Psychology	Adv. Latin I & II (2017-2018) Adv. German I & II (2017-2018) Adv. French I & II (2017-2018) Adv. Spanish I & II (2017-2018)		

**Beginning with the Class of 2020**, the Interboro High School will be using a traditional GPA featuring weighted quality points to determine class rank. The quality points calculation chart is described below and applicable to identified core content courses (English Language Arts, Mathematics, Science, and Social Studies) and World Languages.

<b>Grade</b>	<b>Academic</b>	<b>College Prep</b>	<b>Honors</b>	<b>AP</b>
100	4.00	4.50	5.50	6.00
99	3.90	4.40	5.40	5.90
98	3.80	4.30	5.30	5.80
97	3.70	4.20	5.20	5.70
96	3.60	4.10	5.10	5.60
95	3.50	4.00	5.00	5.50
94	3.40	3.90	4.90	5.40
93	3.30	3.80	4.80	5.30
92	3.20	3.70	4.70	5.20
91	3.10	3.60	4.60	5.10
90	3.00	3.50	4.50	5.00
89	2.90	3.40	4.40	4.90
88	2.80	3.30	4.30	4.80
87	2.70	3.20	4.20	4.70
86	2.60	3.10	4.10	4.60
85	2.50	3.00	4.00	4.50
84	2.40	2.90	3.90	4.40
83	2.30	2.80	3.80	4.30
82	2.20	2.70	3.70	4.20
81	2.10	2.60	3.60	4.10
80	2.00	2.50	3.50	4.00
79	1.90	2.40	3.40	3.90
78	1.80	2.30	3.30	3.80
77	1.70	2.20	3.20	3.70
76	1.60	2.10	3.10	3.60
75	1.50	2.00	3.00	3.50
74	1.40	1.90	2.90	3.40
73	1.30	1.80	2.80	3.30
72	1.20	1.70	2.70	3.20
71	1.10	1.60	2.60	3.10
70	1.00	1.50	2.50	3.00
69	0.90	1.40	2.40	2.90
68	0.80	1.30	2.30	2.80
67	0.70	1.20	2.20	2.70
66	0.60	1.10	2.10	2.60
65	0.50	1.00	2.00	2.50

## **ART PROGRAM**

---

<b>Art I</b>	<b>7315</b>	<b>Grades 9 -11</b>	<b>.5 credit</b>
--------------	-------------	---------------------	------------------

---

This course teaches basic drawing & design concepts with an emphasis placed on understanding the elements of art & principles of design. Students will be exposed to a variety of art media to expand their knowledge and appreciation for creating art.

*Students must have teacher recommendation to advance to Art II.*

---

<b>Art II</b>	<b>7325</b>	<b>Grades 10 -12</b>	<b>1 credit</b>
---------------	-------------	----------------------	-----------------

---

This course is a continuation of the Art I program. Students will further develop their understanding of the elements of art & principles of design while completing more complex and more involved projects.

*Students are required to have a teacher recommendation to advance to Art III.*

---

<b>Art III</b>	<b>7335</b>	<b>Grades 11 -12</b>	<b>1 credit</b>
----------------	-------------	----------------------	-----------------

---

This course studies advanced techniques in drawing, painting, design and sculpture. Students will be responsible for completing projects, participating in class critiques and maintaining a sketchbook. A prepared portfolio is expected at the end of this course.

*Successful completion of the course, a portfolio presentation and a teacher recommendation are required to advance to Advanced Placement Studio Art.*

---

<b>Art IV</b>	<b>7345</b>	<b>Grade 12</b>	<b>1 credit</b>
---------------	-------------	-----------------	-----------------

---

Students are encouraged to pursue independent study in areas of personal interest. Teacher directed projects will be given if necessary.

---

<b>Advanced Placement Studio Art</b>	<b>7346</b>	<b>Grade 12</b>	<b>2 credits</b>
--------------------------------------	-------------	-----------------	------------------

---

This intensive double period course offers advanced study in drawing, painting, design and sculpture. An area of concentration will be completed using a wide variety of materials and methods. Time will be used for portfolio preparation, art school and career exploration. AP students who choose to take the AP exam will pay an additional fee for the test (approximately \$75.00). As part of the examination, students will need slides of their work. The art department will photograph portfolios for professional presentation.

*Prerequisite: Teacher recommendation.*

## **BUSINESS PROGRAM**

**The Business Department recognizes that our students have a wide variety of interests in the business field and career employment skills. The business teachers are available to answer any specific questions you may have concerning your child's course selection related to these offerings.**

---

**Introduction to Business                      7115                      Grades 9 -12                      .5 credit**

Students will have an opportunity to learn about the American enterprise system, how businesses are organized, and how businesses operate within our economic system. Students will be exposed to a variety of career choices in the business world. In addition to the textbook, students will explore real life scenarios, watch interesting and revealing videos showing how business affects our lives and society, while interacting with classmates and guest speakers.

---

**Marketing and Advertising                      7116                      Grades 10 -12                      .5 credit**

This hands on semester course will introduce students to the world of marketing and advertising. We will explore the process of bringing a product or service to market. Topics include product or service conception, pricing, promotion, and distribution. A marketing plan will be created for a product or service of your choice. We will explore ideas using a hands on approach to project base learning using real world case studies along with discussion with classmates and guest speakers. Learn how businesses can influence the decisions made by consumers.

---

**How to Start a Business - Entrepreneurship   7138                      Grades 10 -12                      .5 credit**

This hands on semester course is designed for the student interested in creating, owning, and managing his/her own business. Students will explore types of ownership, essential business skills and abilities needed for successful business ownership. Throughout the semester students will create a business plan for a business idea of their choice. Some topics that will be covered include: financing, staffing, competition and marketing. Each of these ideas will be studied through hands on project based learning, real world case studies, interacting with classmates and guest speakers. Famous entrepreneurs will also be studied.

---

**Personal Financial Management                      7124                      Grades 11-12                      .5 credit**

Our course is a must have for all students regardless of their academic pursuits. Managing our money is one of the most difficult tasks in life. We will discuss managing savings and investments, buying cars, acquiring and using credit cards, how to buy a house, insurance and more. This class will help students begin to think about their financial decisions and the consequences they bring in our lives.

---

**Accounting I                      7129                      Grades 10-12                      1 credit**

Students will learn the basic principles of the accounting cycle. This is an excellent introductory course to accounting principles. Being that accounting is the language of "Business" this is a must have for any student interested in any business career. If any student pursues a business degree they will see accounting classes in their further education. Missing this opportunity would be a mistake.

***Prerequisite: Interest in Business or seeking a degree in a Business Related Field***

This is a full-year course in advanced accounting principles with an emphasis on partnership and corporate accounting. The foundation work from Accounting I is used as the building block for this course. Understanding is accomplished through a variety of application, homework, and case problems that are designed to aid the student in grasping essential advanced accounting concepts. Realism is created through the use of a business simulation during the last quarter. You will learn how to apply the knowledge in accounting through the use of computerized accounting software.

***Prerequisite: 80 or better in Accounting I***

### **Business Co-op Program**

Business Co-op is a program for those students who would like to explore career options, continue learning employment related job skills in the classroom, and earn money at the same time. Students have worked in the offices, telephone marketing, restaurants, stores, etc. The Co-op Coordinator and the work supervisor will closely monitor the student's progress on the job.

**Each quarter** students are able to earn .5 credits for working at a job. Basic requirements include:

- Working a minimum of 15 hours per week at a legal job
- Completion of monthly calendar indicating hours worked
- Show Coordinator **one** pay stub per month
- Quarterly review from employer

## COMPUTERS/INFORMATION TECHNOLOGY

---

<b>Computer Applications</b>	<b>7118</b>	<b>Grades 9 -10</b>	<b>.5 credit</b>
------------------------------	-------------	---------------------	------------------

---

Taking the course will enable you to become a proficient user of Microsoft Office Products. Having technical skills in Word, Excel, Publisher and PowerPoint, as well as internet based products such as Google, Prezi, Movie Maker and other presentation tools will ensure an opportunity for success in high school, college and future careers. Additional Topics include discussion on Digital Citizenship and safety tips concerning social networking sites and electronic footprints tracking your communication and technology activities.

---

<b>Advanced Business &amp; Career Applications</b>	<b>7130</b>	<b>Grades 9-12</b>	<b>.5 credit</b>
--	-------------	--------------------	------------------

---

Students will develop skills using spreadsheet, database and other communication programs to solve real world problems. It is important to develop these skills to be successful in college and career programs. See how real world situations lead professionals to meaningful solutions. This course is a must for anyone seeking a career in Business or Technology.

---

<b>Computer Programming</b>	<b>7131</b>	<b>Grades 11 -12</b>	<b>.5 credit</b>
-----------------------------	-------------	----------------------	------------------

---

This course will introduce students to programming using the Python language. The students will learn how to create computer code using variables, functions and other programming techniques. Fundamental programming skills will include designing, coding, debugging and testing of applications. Basic concepts of general programming is a foundation for technical skills leading to career opportunities.

---

<b>Webpage Design</b>	<b>7121</b>	<b>Grades 9 -12</b>	<b>.5 credit</b>
-----------------------	-------------	---------------------	------------------

---

Students will learn Hypertext Markup Language (HTML), the “introduction” language of the Internet. Students will understand HTML well enough to create basic web pages with no assistance from a Web editor or pre-designed templates.

Understanding HTML will also enable students to follow, understand and edit the code generated by a Web editor. An interest in programming and computer science is recommended. This course is a must for students planning a career in Computer Science or Business Administration.

---

<b>Advanced Webpage Design</b>	<b>7123</b>	<b>Grades 10 -12</b>	<b>.5 credit</b>
--------------------------------	-------------	----------------------	------------------

---

Continuing where Webpage Design left off, students will continue to grow their knowledge of HTML while also introducing other languages used in web design such as CSS and Java.

***Prerequisites: 80 or higher in Webpage Design or teacher recommendation.***

---

<b>Video Game Programming</b>	<b>7134</b>	<b>Grades 9-12</b>	<b>.5 credit</b>
-------------------------------	-------------	--------------------	------------------

---

Learn to create a video game using functional programming techniques. Use your imagination to design a game by selecting a playing field and creating characters with rules. You will determine how characters interact. It is a great way to develop algebra skills while making a video game.

***Prerequisite: Student must have successfully completed Pre-Algebra/Topics in Geometry.***

CS Discoveries is designed from the ground up to be an accessible and engaging course for all students, regardless of background or prior experience. By providing students opportunities to engage with culturally and personally relevant topics in a wide variety of CS related fields

*Semester 1: CS Discoveries: Exploration and Expression*

The first semester of CS Discoveries introduces students to computer science as a vehicle for problem solving, communication, and personal expression. As a whole this semester focuses on the visible aspects of computing and computer science, encouraging students to see where computer science exists around them and how they can engage with it as a tool for exploration and expression. Computers are all around us, and for students much of their everyday action is impacted by computing. In the unit students will explore what it means for something to be a computer - what core functionality brings together all these items we think of as computers. Students should know how to use computers effectively - this means being able to navigate a computer and accomplish tasks. Students look at the many things computers allow people to do. Starting off with simple primitive shapes and building up to more sophisticated sprite-based games, students will become familiar with the basic concepts that form the foundation of computer programming. The development of a personalized final project will engage students in design, testing, and iteration as they come to see that failure and debugging are an expected (and valuable) part of the programming process that make your end product better.

CS Discoveries is designed from the ground up to be an accessible and engaging course for all students, regardless of background or prior experience. By providing students opportunities to engage with culturally and personally relevant topics in a wide variety of CS related fields

*Semester 1: CS Discoveries: Exploration and Expression*

The first semester of CS Discoveries introduces students to computer science as a vehicle for problem solving, communication, and personal expression. As a whole this semester focuses on the visible aspects of computing and computer science, encouraging students to see where computer science exists around them and how they can engage with it as a tool for exploration and expression. Computers are all around us, and for students much of their everyday action is impacted by computing. In the unit students will explore what it means for something to be a computer - what core functionality brings together all these items we think of as computers. Students should know how to use computers effectively - this means being able to navigate a computer and accomplish tasks. Students look at the many things computers allow people to do. Starting off with simple primitive shapes and building up to more sophisticated sprite-based games, students will become familiar with the basic concepts that form the foundation of computer programming. The development of a personalized final project will engage students in design, testing, and iteration as they come to see that failure and debugging are an expected (and valuable) part of the programming process that make your end product better.

*Semester 2: CS Discoveries: Innovation and Impact*

Where the first semester centers on the immediately observable and personally applicable

elements of computer science, the second semester asks students to look outward and explore the impact of computer science on society. Students will see how a thorough user-centered design process produces a better application, how their personal data is collected and used on the web, and they will work with bare circuit boards to see how computers collect input and return output in a variety of ways. Through the entirety of this semester student groups will continue to iterate on and refine a mobile app that integrates everything they've learned throughout the course into one capstone project. By exploring innovative computing devices from a variety of fields, students will explore the essential elements of computer hardware. Using a bare microcontroller board with several integrated sensors and output devices students will learn how software interacts with hardware and they will develop prototypes of physical computing devices. In the final stage of the course student groups will once again return to their capstone apps, this time connecting them with their physical computing boards as a means of input, output, or both.

***Prerequisite: Student must have successfully completed Pre-Algebra/Topics in Geometry.***

**AP Computer Science Principles**

**7137**

**Grades 10-12**

**1 credit**

The AP Computer Science Principles course is designed to be equivalent to a first-semester introductory college computing course. In this course, students will develop computational thinking vital for success across all disciplines, such as using computational tools to analyze and study data and working with large data sets to analyze, visualize, and draw conclusions from trends. The course is unique in its focus on fostering student creativity. Students are encouraged to apply creative processes when developing computational artifacts and to think creatively while using computer software and other technology to explore questions that interest them. They will also develop effective communication and collaboration skills, working individually and collaboratively to solve problems, and discussing and writing about the importance of these problems and the impacts to their community, society, and the world.

***Prerequisite: Student must have successfully completed Algebra I.***



## **FAMILY AND CONSUMER SCIENCES**

The Family and Consumer Sciences department provides opportunities for students to experience possible career choices within and without the school environment. Courses are tracked as General FCS, Food Service and Hospitality, Apparel and Interior Design, and Human Services including teaching (preschool, kindergarten, elementary, middle and high school) and elder care. Limited internships in Professional Field Experience are available to senior students who have completed the necessary course sequence. All FCS courses include practical applications of technology and are meshed with the study of family, community, and work place.

### **Introduction to Family & Consumer Sciences      7515      Grades: 9 -12      .5 credit**

During the semester you will explore areas of study within Family and Consumer Sciences through activities and hands-on projects. You will receive credit for Family and Consumer Education through this course. Students will practice personal budgeting and learn about insurance, banking, credit and other financial management concepts. Family and Consumer Science units of study may specifically include a study of family structures and relationships, explore problems and events associated with being on your own such as: career choices, consumerism, learning how to become a smart shopper and studying the stages of development of small children and planning the design and furnishing of a room. Units studied each semester are dependent on room availability within the department.

### **Chef's Corner      7520      Grades: 9-12      .5 credit**

In this lab based class students will study and apply basic cooking principles and techniques. You will prepare and taste a wide variety of recipes such as lasagna, omelets, fajitas, apple crisp, tacos, chicken, French silk pie, shrimp scampi, homemade macaroni and cheese, pizza, etc., as well as food products on the market. While learning to prepare these foods you will increase your culinary skills and appreciation of great tasting food. This course is a prerequisite for the advanced foods courses. Basic skills learned in this class will be built upon in Gourmet Foods.

### **Nutrition for a Healthy Lifestyle      7519      Grades: 9 -12      .5 credit**

In this course students will learn basic principles of food preparation as it relates to nutrition and wellness. Students will analyze dietary requirements, learn to understand portion sizes and learn how food choices affect overall health and wellness. Students will also explore the nutritional needs of individuals including people with dietary restrictions and athletes. Students will practice a variety of cooking techniques in the foods lab which focus on healthy meal preparation, nutrient dense foods, and the incorporation of current trends and research in food and nutrition. By the end of the course, students will have developed and implemented personal wellness plans for maintaining health and fitness including planning meals and menus and fitness routines to promote health.

### **Introduction to Hospitality      7526      Grades: 9 -12      .5 credit**

This course is designed to introduce students to the field of hospitality. Course content will cover an overview of the hospitality industry, including careers in food service, hotel restaurant management and tourism. Students will learn about workplace safety, interpersonal communication and customer relations applicable to all career choices. Students will hear from representatives from schools offering majors in the various areas of hospitality. Field trips to local businesses and colleges may be a component of this course. This course **does not** include food preparation.

**Course requirements** include a folder, tests, projects and final exam.

**Fashion & Construction****7525****Grades: 9 -12****.5 credit**

This beginning course will feature basic sewing and garment construction techniques such as layout and cutting of patterns and fabric, sewing of seams and darts, applying interfacing and hemming techniques. Technical abilities will be enhanced through the use of sewing machines and sergers. Students are required to complete a minimum of two construction projects during the semester. It is necessary for students to provide their own patterns, fabric and notions for classroom projects. Students will gain technical and problem-solving skills through the reading of patterns and construction of garments. Students will also have opportunity to make quilts that will be donated, through the FCS department. The course will explore current fashion trends, fashion designers, designing a clothing collection, wardrobe planning, clothing care, cutting edge technology, in addition to construction skills. Students will also explore career options in apparel design, textiles and retail. This course is recommended for anyone pursuing a career in fashion merchandising, design and retailing. **Course requirements:** 2 clothing projects and sewing construction samples.

**Advanced Fashion Construction****7538****Grades: 9 - 12****.5 credit**

Students will have the opportunity to practice advanced sewing techniques as they create a variety of garments from skirts to pants, jackets or formal gowns. Students may practice adapting patterns to personalize their designs. This is a course for sewing enthusiasts. **Course requirements** minimum of 2 garments and sewing samples.

**Prerequisite:** *Fashion & Construction or Instructor or Department Chairperson approval. This course may be repeated.*

**Interior Design****7551****Grade 10 - 12****.5 credit**

Interior Design is a course that will enable students to make practical application of design techniques, career choices, and informed consumer choices regarding home interiors. Highlights of the course include study of the elements and principals of design, creating design projects, housing styles, traffic flow, furniture styles and arrangement and creating a floor plan presentation complete with color schemes, furniture, window, wall, and floor treatments. Students will develop skills in architectural drafting and space planning through the use of hand or computerized drafting techniques. Students will apply math calculations to scale rooms and create scaled floor plans for a variety of spaces. Students will begin to “see” and appreciate their environments in a new way. **Course Requirements:** Attendance to field trips, tests, projects, Mid-term/Final Project.

**Gourmet Foods****7521****Grades: 10 -12****.5 credits**

This class is for the student who enjoys cooking and wants to explore advanced culinary techniques. Become an expert at moist and dry heat cooking methods for a variety of foods including vegetables, meats, poultry and seafood. Explore specialty techniques and ingredients used to make salads, appetizers, cheese and dairy products, and baked products such as breads, cakes, cookies, pastry and specialty desserts. Practice the principles of sauce cookery and stock making. Learn to make fresh pasta and customize recipes to make them your own. Practice these advanced and specialty techniques in many hands on lab experiences. **Course requirements** include a folder, tests, and laboratory experience, attending field trips, participating in a student demonstration, mid-term, and final exam. **Prerequisites:** Chef’s Corner

Students will learn about the development of young children from prenatal development through the preschool years. Students will study the physical, emotional, intellectual and social development of young children. Students will also learn about age appropriate lesson planning, teaching lessons and how to conduct observations. During the year students will teach children in the Young Bucs Preschool. The preschool serves children ages 3-5 from the community. High school students conduct lessons, stories, games, music, and art projects with the children. The skills learned in this class can be transferred to any career related to young children. Students who plan to pursue careers involving children such as education, child psychology, recreation, counseling, child care, or those who just enjoy working with and learning about them, should take this course. After completing Child Development students may enroll in the Professional Field Experience to further their experience working with children.

## English Language Arts Program

The English Department curriculum for grades 9 through 12 integrates the PA Core standards through reading, writing, speaking and listening. Reflecting the individual differences and needs of students, the curriculum establishes as its primary purpose that each student will have maximum opportunity to:

- Build upon previous knowledge
- Develop higher level thinking skills
- Appreciate literature as an art form
- Use available technology as 21<sup>st</sup> century learners

---

<b>English 10</b>	<b>3023</b>	<b>Grade 10</b>	<b>1 Credit</b>
-------------------	-------------	-----------------	-----------------

---

This course is a thematic survey of literature with an emphasis on writing. Along with preparation for the Keystone Examination, the literature program will continue to expose students to literary works from America and around the world. Students will analyze literary elements in a variety of novels, plays, poems and short stories. Writing assignments will include the informational and argumentative essay as well as a variety of creative writing responses. Through reading and writing assignments students will practice the rules of grammar and correct usage of language. Students will increase their language knowledge through a vocabulary study program. Students will take the Literature Keystone Examination in May.

---

<b>English 11</b>	<b>3033</b>	<b>Grade 11</b>	<b>1 Credit</b>
-------------------	-------------	-----------------	-----------------

---

This course is a survey course of American literature with an emphasis on writing and preparation for the Keystone Examination which will be re-attempted if student did not achieve proficiency on their initial attempt. The literature program will expose students to literary works from American writers and contemporary non-fiction articles. Students will analyze literary elements in a variety of novels, plays, poems and short stories. Writing assignments will include the informational and argumentative essay as well as a variety of creative writing responses. Through reading and writing assignments students will practice the rules of grammar and correct usage of language. Students will increase their language knowledge through a vocabulary study program.

---

<b>English 12</b>	<b>3043</b>	<b>Grade 12</b>	<b>1 Credit</b>
-------------------	-------------	-----------------	-----------------

---

This course is a survey course of British literature with an emphasis on writing. The literature program will expose students to literary works from British writers and contemporary non-fiction articles. Students will analyze literary elements in a variety of novels, plays, poems and short stories. Writing assignments will include the informational and argumentative essay as well as a variety of creative writing responses. Through reading and writing assignments, students will practice the rules of grammar and correct usage of language. Students will increase their language knowledge through a vocabulary study program.



**Honors English 9****3011****Grade 9****1 Credit**

The intensive study of American and World literature will include classroom discussion and written literary analysis. In the literature program, students will analyze literary elements in novels, plays, poems, and stories at an **advanced and challenging pace**. Independent reading will be assigned during the course of the year. Critical thinking skills will also be applied to assigned novels and short stories studied in the classroom and those read independently. The mainstay of writing will be the literary analysis, as well as the informational and argumentative essay and a variety of creative writing responses. The research process will be reviewed through a research project. Through reading and writing assignments students will practice the rules of grammar and correct usage of language. Students will also complete variety of activities to prepare for the Keystone Exams.

**Honors English 10****3021****Grade 10****1 Credit**

This course continues the intensive study of American and World literature from freshman year. The course will move at an **advanced and challenging pace**. Students are expected to actively contribute to classroom discussion and write several literary analysis essays. Along with preparing students for the SAT and Keystone Exams, the literature program will continue to expose students to literary works from around the world. Students will analyze literary elements in a variety of novels, plays, essays, poems and short stories. Independent novels will be read during the course of the year. Writing assignments will include the informational and argumentative essay, the research paper, as well as a variety of creative writing responses. Through reading and writing assignments students will practice the rules of grammar and correct usage of language. Students will increase their language knowledge through an extensive college-level vocabulary study program. Students will take the Literature Keystone Examination in May.

**Honors American Literature 11****3031****Grade 11****1 Credit**

The primary focus of the course is reading, interpreting and analyzing American Literature, literary periods, and themes. All literary forms will be read and studied. The literature program will move at an **advanced and challenging pace** exposing students to literary works from American writers. Independent reading of novels and plays will be assigned during the course of the year in which critical thinking skills will be assessed. The mainstay of writing will be the literary analysis, as well as the informational and argumentative essay. Through reading and writing assignments students will practice the rules of grammar and correct usage of language.

***Prerequisite: Student must have achieved a Proficient or Advanced score on the Literature Keystone Examination taken in May of sophomore year.***

**Honors British Literature and Composition 12****#####****Grade 12****1 Credit**

This course is an accelerated survey course of British literature with an emphasis on writing. The primary focus of the course will be reading, interpreting and analyzing British literature, literary periods, and themes. This is not an Advanced Placement course, but the literature program will move at an **advanced and challenging pace** exposing students to literary works by British writers and contemporary non-fiction articles. Students will analyze literary elements in a variety of novels, plays, poems and short stories. Writing assignments will include the informational and argumentative essay, the research paper, as well as a variety of creative writing responses. Through reading and writing assignments students will practice correct usage of language. Students will also increase their language knowledge through a vocabulary study program.

***Prerequisite: Student must have achieved a Proficient or Advanced score on the Literature Keystone Examination and have a A/B average in Honors American Literature or an A average in College Prep American Literature.***

**Advanced Placement English Language and Composition      3030    Grades 11 -12    1 Credit**

Students in this introductory college-level course will read and carefully analyze a challenging range of nonfiction prose selections, deepening their awareness of rhetoric and how language functions in a multitude of settings. As students engage in close-reads and frequent writing, they will gain a greater awareness of the power of language and as a result will strengthen their own writing abilities. Course readings feature expository, analytical, personal, and argumentative texts from a variety of authors and historical contexts. Students will examine and work with essays, letters, speeches, images, etc. in order to analyze powerful written and spoken language across a broad spectrum of time and place.

Since this is a college-level course, student expectations are appropriately high and the workload is challenging. Students must bring to the course sufficient command of the mechanics of writing and the ability to read and discuss difficult prose.

***Prerequisites for Advancement Placement English Language and Composition:***

- *90% average in prior Honors English course*
- *Submit a graded essay sample of writing*
- *Recommendation from English Teacher*

**Advanced Placement English Literature                      3051                      Grade 12                      1 Credit**

In the Advanced Placement of Literature and Composition, students will be engaged in the careful reading of American and European literary works. Through such study they will sharpen their awareness of language and their understanding of the writer's craft. They will develop critical standards for the independent appreciation of any literary work, and they will study the individual work, its language, characters, action and themes. They will consider its structure, meaning and value, and its relationship to contemporary experience.

Students will be involved in both the study and practice of writing and the investigation of literature. Through speaking, listening and reading, but chiefly through the experience of their own writing, students will become more aware of the resources of languages: connotation, metaphor, irony, syntax and tone.

Writing assignments will focus on the critical analysis of literature and will include essays in exposition and argument. Speaking and writing about different kinds of subjects will further develop the student's sense of how style, subject, and audience are related. The desired goals are honest and effective use of language and the organization of ideas in a clear, coherent, and persuasive manner.

Students will study intensively representative works from various genres and periods. They will concentrate on works of recognized literary merit, worthy of scrutiny because their richness of thought and language challenges the reader. Because the course will stress close attention to an author's own language and style, most of the assigned reading will be in texts originally written in English.

By the end of the AP course, students will have carefully studied works from both the American and European traditions, and from various periods from the sixteenth century on, and from the following genres: poetry, drama, prose fiction (novel and short story) and expository literature.

Preparing for the AP Examination in English Literature and Composition will be a cooperative venture between students and teacher. Students will read widely and reflect on their reading through extensive discussion, writing, and rewriting. Ideally, they will work with a teacher in a small class or tutorial session. They will assume responsibility for the amount of reading and writing they do. The teacher will guide them in their choice of reading and will prepare them for the AP Examination in May by leading discussions and by providing assignments that will help students develop critical standards in their reading and writing. Students and parents of students considering enrolling in the AP English program

Are reminded that Advanced Placement courses are designated as college level courses and, therefore, represent a significant commitment in terms of independent study and outside classroom assignments.

***Prerequisites for Advanced Placement English 12:***

- *Each student should have at least a 90 GPA in prior English courses.*
- *Proficiency on Literature Keystone Examination.*
- *It is the assumption that each student taking the Advanced Placement course WILL take the Advanced Placement Literature and Composition Examination in May for college credit.*
- *When the guidance counselors schedule your classes for next year, your English teacher must recommend you for the Advanced Placement course.*

**Genocide and the Holocaust                      3016                      Grades 10-12                      .5 Credit**

The purpose of this course is to study genocide and the Holocaust in depth. This course will explore the steps leading to the Holocaust, events of the Holocaust itself, and the aftermath through literature, film and historical analysis. The course will also touch on major atrocities in the late 20th century. Students must be in 10<sup>th</sup> through 12th grade to participate in the course due to the need of background knowledge gained in 9<sup>th</sup> grade English.

**Introduction to Theatre Arts                      3015                      Grades 9-12                      .5 Credit**

This course is designed to give students an overview of all aspects of theatrical productions, as well as develop an appreciation for the fine arts. Students will learn about the history of theater, how to write and analyze scripts and explore the fundamentals of acting through the use of Uta Hagan’s Basic Acting Exercises. Students will work towards performing improv, monologues, duets, and a one-act play in a collaborative, non-threatening environment. You must be willing to perform in front of your peers in order to take this course.

**Journalism                      3020                      Grades 9-12                      .5 Credits**

This is a project-based, production-intensive course designed to provide a fun, accurate, historical account of the school year in the forms of a yearbook (The Buccaneer) and digital newsletter (The Treasure Chest). Students will research assigned topics, interview subjects for articles, write competent copy and captions, and complete layouts using desktop publishing software.

**Creative Writing I                      3017                      Grades 9-12                      .5 Credit**

This course is designed for students who are interested in **writing**; students will have to write on a daily basis. The class will consist of learning and executing various writing styles to help strengthen their use of the English language. The class focus will be to appreciate the art of writing.

**Creative Writing II                      3019                      Grades 10-12                      .5 Credit**

This course will allow students to deepen their understanding of course concepts presented in Creative Writing I. Students will practice writing on a daily basis, and strengthen their ability to create works of fiction, poetry, and memoir. An additional element of the course will be the inclusion of a publishing component, in which students will create and share digital versions of their work for critique. The course will be writing intensive, and will require an openness to sharing final products. Students must have successfully completed Creative Writing I in order to take this course.



---

<b>Visual Media I</b>	<b>3025</b>	<b>Grades 9-12</b>	<b>.5 Credit</b>
-----------------------	-------------	--------------------	------------------

---

This is an introductory visual media course focusing on the history and science of television and film production. Students will study pre-production, production, and post-production storytelling through digital media utilizing iMovie software and digital film cameras. Students will work individually and in groups, incorporating video, still images, sound and voice over, text, transitions and effects.

---

<b>Visual Media II</b>	<b>3026</b>	<b>Grades 10-12</b>	<b>.5 Credit</b>
------------------------	-------------	---------------------	------------------

---

This visual media course will go deeper into the history and science of television and film production. The class will focus on the study and analysis of film. Students will work individually and in groups to create short films, incorporating video, still images, sound and voice over, text, transitions and effects. Prerequisite: Visual Media I

---

<b>Broadcast News Reporting</b>	<b>3028</b>	<b>Grades 10-12</b>	<b>.5 Credit</b>
---------------------------------	-------------	---------------------	------------------

---

Students will learn how to successfully produce a daily morning news show (K-Scope) as well as a weekly news show (Inside Interboro). Students will collect information, conduct interviews, write stories, as well as edit and produce segments. This course will require filming various afterschool activities.

*Prerequisite: Students must have successfully completed Visual Media I in order to take this course.*

---

<b>Short Fiction: Stories &amp; Poems</b>	<b>3027</b>	<b>Grades 9-11</b>	<b>.5 Credit</b>
---	-------------	--------------------	------------------

---

This semester course will use short fiction readings to expose students to a variety of writers and their writing styles. Students will explore the choices writers make and how these writers create their characters, stories, and tales. Students will develop an appreciation for the craft of storytelling as they meet interesting characters during the in-class readings of short-stories and poems. Students will also develop their ability to summarize, analyze, evaluate, and critique literature.

---

<b>Reading Seminar</b>	<b>3029</b>	<b>Grades 9-10</b>	<b>1 Credit</b>
------------------------	-------------	--------------------	-----------------

---

Students will receive explicit multi-tiered literacy interventions based on student's needs of phonics, fluency, vocabulary acquisition, writing, grammar, syntax, semantics, and reading comprehension. Students' progress will be monitored weekly and evaluated for growth. Students are placed based on individual data.

---

<b>College Entrance Exam Prep (SAT and ACT) 7735</b>	<b>Grade 11</b>	<b>.25 Credit</b>
--	-----------------	-------------------

---

This is an intensive and challenging class designed to prepare students for the Reading and Writing section of the Scholastic Assessment Test (SAT). This course will teach students the format of the test and provide both strategies and practice for questions on critical reading, sentence completion, grammar, and writing. Guided instruction and independent practice provide the foundation for the course. This is an accelerated course.

## WORLD LANGUAGE PROGRAM

Any student contemplating the study of a world language should aim to attain proficiency in reading, writing, speaking and listening. The basic course requirements for all World Language courses include: studies in vocabulary and grammar, prepared and informal oral presentation, comprehension exercises, dictation, recitations, compositions, and reading. In language courses at all levels instruction also includes cultural exploration of the countries and the people connected with the language being studied.

<b>Introductory Latin</b>	<b>7015</b>	<b>Grades 9,10,11,12</b>	<b>1 credit</b>
<b>Introductory French</b>	<b>7016</b>	<b>Grades 9,10,11,12</b>	<b>1 credit</b>
<b>Introductory Spanish</b>	<b>7017</b>	<b>Grades 9,10,11,12</b>	<b>1 credit</b>
<b>Introductory German</b>	<b>7018</b>	<b>Grades 9,10,11,12</b>	<b>1 credit</b>

These courses offer a basic introduction to the language. A foundation of vocabulary and grammar structures are presented through conversational exchanges, reading selections and written exercises. Students will begin to form an appreciation for the similarities and differences between the cultures being studied and their own.

<b>Intermediate Latin</b>	<b>7025</b>	<b>Grades 10,11,12</b>	<b>1 credit</b>
<b>Intermediate French</b>	<b>7026</b>	<b>Grades 10,11,12</b>	<b>1 credit</b>
<b>Intermediate German</b>	<b>7028</b>	<b>Grades 10,11,12</b>	<b>1 credit</b>

These intermediate courses focus on speaking and understanding the language. In this course the emphasis is placed on development of the student's vocabulary and reading skills, writing of controlled compositions, and extension of the student's control and understanding of grammar through more formal analysis of already familiar grammar patterns. Cultural awareness continues to be fostered throughout the course.

*Prerequisite: Successful completion of Introductory Level with a recommended minimum grade of 70.*

<b>Spanish II</b>	<b>7027</b>	<b>Grades 10, 11, 12</b>	<b>1 credit</b>
-------------------	-------------	--------------------------	-----------------

This course is a review and continuation of Introductory Spanish. Students will have the opportunity to strengthen their conversational skills and broaden their understanding of grammatical structures and cultural content. Writing skills will be further developed and continued study of vocabulary is emphasized.

*Prerequisite: Successful completion of Introductory Spanish with a recommended minimum grade of 70.*

<b>Intermediate Spanish</b>	<b>7029</b>	<b>Grades 10, 11, 12</b>	<b>1 credit</b>
-----------------------------	-------------	--------------------------	-----------------

This course provides an opportunity for students to expand content knowledge and enhance proficiency in all linguistic skill areas. Students will strengthen their conversational skills and broaden their understanding of grammatical structures and cultural content. Writing skills will be further developed and continued study of vocabulary is emphasized. This course will progress at a rigorous pace and include in-depth project-based assessments. It is intended for students who have a strong interest in Spanish.

*Prerequisite: Successful completion of Introductory Spanish with a minimum grade of 90.*

<b>Advanced I Latin</b>	<b>7055</b>	<b>Grades 11,12</b>	<b>1 credit</b>
<b>Advanced I French</b>	<b>7056</b>	<b>Grades 11,12</b>	<b>1 credit</b>
<b>Advanced I German</b>	<b>7058</b>	<b>Grades 11,12</b>	<b>1 credit</b>

This course focuses on further developing proficiency in reading, writing, speaking and listening at a more advanced level. Students will work with more complex grammatical structures and continue to acquire fluency with vocabulary. A concentration on writing composition and exploration of literature are included, as well as gaining a deeper understanding of cultural norms.

*Prerequisite: Successful completion of Intermediate Level with a recommended minimum grade of 80.*

<b>Spanish III</b>	<b>7037</b>	<b>Grades 11, 12</b>	<b>1 credit</b>
--------------------	-------------	----------------------	-----------------

This course focuses on further developing proficiency in reading, writing, speaking and listening as a continuation of Spanish II. Students will work with more complex grammatical structures and continue to acquire fluency with vocabulary. Guided writing composition and exploration of fiction and non-fiction reading are included, as well as gaining a deeper understanding of cultural norms.

*Prerequisite: Successful completion of Spanish II or Intermediate Spanish with a recommended minimum grade of 70.*

<b>Advanced I Spanish</b>	<b>7039</b>	<b>Grades 11, 12</b>	<b>1 credit</b>
---------------------------	-------------	----------------------	-----------------

As a continuation of Intermediate Spanish, this course focuses on further developing proficiency in reading, writing, speaking and listening at a more advanced level. Students will work with more complex grammatical structures and continue to acquire fluency with vocabulary. A concentration on writing composition and exploration of literature are included, as well as gaining a deeper understanding of cultural norms. This course will progress at a rigorous pace and include in-depth project-based assessments. It is intended for students who have a strong interest in Spanish.

*Prerequisite: Successful completion of Intermediate Spanish with a recommended minimum grade of 80.*

<b>Advanced II Latin</b>	<b>7049</b>	<b>Grade 12</b>	<b>1 credit</b>
<b>Advanced II French</b>	<b>7066</b>	<b>Grade 12</b>	<b>1 credit</b>
<b>Advanced II German</b>	<b>7068</b>	<b>Grade 12</b>	<b>1 credit</b>

These courses enable the student to apply more extensively and develop more fully the linguistic skills previously attained. Films and recordings provide a variety of speakers for oral comprehension. Both contemporary and classical selections are read and discussed, while free composition is practiced regularly. The study of history and literature is emphasized for cultural exploration and comparison. Vocabulary and grammatical study is both remedial and advanced as students participate in performance based assessments. Students may have the potential to take the AP exam with additional preparation and recommendation from teacher.

*Prerequisite: Successful completion of Advanced I level with a recommended minimum grade of 80.*

**Advanced Studies in Spanish****7047****Grade 12****1 credit**

---

As a continuation of Spanish III, this course enables the student to apply and develop more fully the linguistic skills previously attained. Films and recordings provide a variety of speakers for oral comprehension. Literature selections are read and discussed in the content language. Controlled composition is practiced regularly. The study of history and literature is emphasized for cultural exploration and comparison. Vocabulary and grammatical study is both remedial and advanced as students have opportunities to demonstrate knowledge in project-based assessments.

***Prerequisite: Successful completion of Spanish III or Advanced I Spanish with a recommended minimum grade of 70.***

**Advanced II Spanish****7049****Grade 12****1 credit**

---

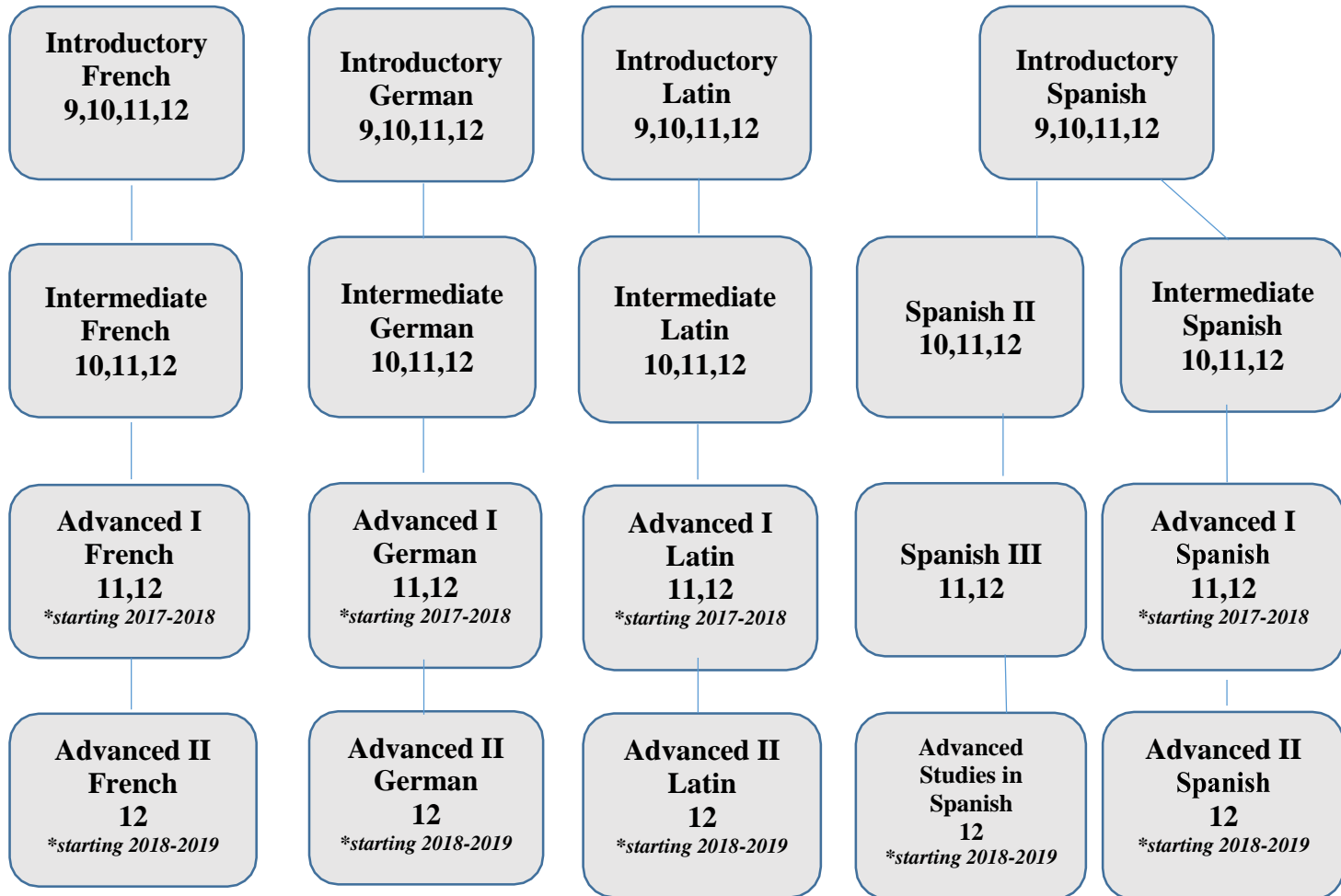
As a continuation of Advanced I Spanish, students will be able to apply more extensively and develop more fully the linguistic skills previously attained. Films and recordings provide a variety of speakers for oral comprehension. Both contemporary and classical selections are read and discussed, while free composition is practiced regularly. The study of history and literature is emphasized for cultural exploration and comparison. Additionally, AP caliber assignments and assessments will be part of regular course work to utilize vocabulary and grammar knowledge. This course will progress at a rigorous pace and include in-depth project-based assessments. It is intended for students who have a strong interest in Spanish.

***Prerequisite: Successful completion of Advanced I Spanish with a recommended minimum grade of 80.***

# World Languages Course Trajectory

## *Beginning with the Class of 2019*

The Interboro High School World Languages Department is phasing in a new course naming configuration beginning in the 2016 – 2017 school year as described below.



- *Advanced I courses will be introduced during the 2017 – 2018 school year.*
- *Advanced II courses will be introduced during the 2018 – 2019 school year.*

# MATHEMATICS PROGRAM

## Standard Student Course Progression

*(Not including electives)*

\*\*\* Note due to the new weight configuration the Math progression will change beginning with the class of 2019. Current Math configuration will remain in place through the 2017-2018 school year.

	HONORS	COLLEGE PREP	ACADEMIC
9 <sup>th</sup>	Honors Geometry	CP Algebra 1 <i>with Keystone Math (spring)</i> Pre-Algebra/Topics in Geometry	
10 <sup>th</sup>	Honors Algebra 2	CP Geometry CP Algebra 1 <i>with Keystone Math (fall)</i>	Algebra 1 <i>with Keystone Math (fall)</i>
11 <sup>th</sup>	Honors Pre-Calculus  AP Statistics	CP Algebra 2	Intermediate Algebra and Geometry (0.5 credits each)
12 <sup>th</sup>	AP Calculus  AP Statistics  Honors Calculus 2	CP Calculus  CP Advanced Math  CP Trigonometry/ CP Prob. & Statistics (0.5 credits each)	Algebra 2  Consumer Math

## Use of Calculators

The Interboro Math Department believes that calculators and other technology can often be used to help students develop an understanding of mathematical concepts. Calculators promote “hands-on” learning and student engagement. Calculators should be used to enhance and strengthen instruction, not replace it. Tedious computational procedures can and should be completed with a calculator.

The Mathematics Department of Interboro High School supports the recommendations of the National Council of Teachers of Mathematics (NCTM):

*The widespread impact of technology on nearly every aspect of our lives requires changes in the content and nature of school mathematics programs. In keeping with these changes, students should be able to use calculators and computers to investigate mathematical concepts and increase their mathematical understanding.*

Students are permitted to use calculators on the Pennsylvania Mathematics Assessment (Algebra I Keystone Exam) and most college entrance exams. All tasks can be completed without the use of a calculator; however, certain tasks are more difficult to complete without a calculator. Students without access to a calculator are at a disadvantage in higher level mathematics.

### Math Department Calculator Recommendation:

- All incoming freshmen should own a Graphing Calculator and are encouraged to bring it to school for use during class.
- Students enrolled in Algebra 2 or higher are very strongly encouraged to own a Graphing Calculator and to bring it to school for use during class.

### **Graphing Calculator(s) recommended (based on current IHS equipment):**

**Texas Instruments TI-84 Plus or the TI-84PlusC (color).**

*(Students may purchase a TI-Nspire without CAS but do not purchase a TI-89, or TI-Nspire CAS, they are inconsistent with the existing classroom equipment)*

### Honors Algebra 1

**4010**

**Grade 8**

**1 credit**

This course offers a solid foundation in algebra while reiterating basic operations of Mathematics. Students will learn how to express real life problems as algebraic expressions and take it one step further to create applicable functions. They will further learn to solve multi-step equations that will become critical in graphing functions. Systems of linear equations and exponential functions will be the final topics that will aid the transition into Geometry and Algebra 2. Students taking this course will be held at the honors level standard. Students will take the Keystone Examination in May.

**Restricted to 8th grade students only.**

**Prerequisite:** PVAAS prediction for proficiency on the Algebra I Keystone Examination, Successful completion of Pre-Algebra.

---

<b>CP Algebra 1</b>	<b>4012</b>	<b>Grades 9 -10</b>	<b>1 credit</b>
---------------------	-------------	---------------------	-----------------

---

This course offers a solid foundation in algebra while reiterating basic operations of Mathematics. Students will learn how to express real life problems as algebraic expressions and take it one step further to create applicable functions. They will further learn to solve multi-step equations that will become critical in graphing functions. Systems of linear equations and exponential functions will be the final topics that will aid the transition into Geometry and Algebra 2. Students taking this course will be held to the College Preparatory standard. Students will be concurrently enrolled in Keystone Math I during the spring semester. Students will take the Keystone Examination in May.

**Restricted to 9<sup>th</sup> and 10<sup>th</sup> grade students only.**

**Prerequisite:** PVAAS prediction for proficiency on the Algebra I Keystone Examination, Successful completion of Pre-Algebra.

---

<b>CP Pre-Algebra/Topics in Geometry</b>	<b>4015</b>	<b>Grade 9</b>	<b>1 credit</b>
--	-------------	----------------	-----------------

---

This course offers a solid foundation in pre-algebra while introducing students to geometric concepts. Students will learn the basis for writing and solving algebraic expressions and equations and how to apply them to real-life scenarios. Students will also learn to measure area and volume of figures, and explore the concept of geometric similarity. Data analysis and probability will be the final topics that will aid the transition into Algebra 1.

**Prerequisite:** 8<sup>th</sup> Grade Core Math 3 or equivalent.

---

<b>Algebra 1</b>	<b>4013</b>	<b>Grade 10</b>	<b>1 credit</b>
------------------	-------------	-----------------	-----------------

---

This course offers a solid foundation in algebra while reiterating basic operations of Mathematics. Students will learn how to express real life problems as algebraic expressions and take it one step further to create applicable functions. Students will further learn to solve multi-step equations that will become critical in graphing functions. Systems of linear equations, data analysis, and polynomial functions will be the final topics that will aid the transition into Geometry and Intermediate Algebra. Students will be concurrently enrolled in Keystone Math 2 during the fall semester. Students will take the Keystone Examination in May.

**Restricted to 10<sup>th</sup> grade students only.**

**Prerequisite:** PVAAS prediction for proficiency on the Algebra I Keystone Examination, Successful completion of Pre-Algebra with Topics in Geometry.

---

<b>Honors Geometry</b>	<b>4021</b>	<b>Grades 9 -10</b>	<b>1 credit</b>
------------------------	-------------	---------------------	-----------------

---

In this course, students will develop reasoning and problem solving skills as they study topics such as congruence and similarity of triangles, and apply properties of lines, triangles, quadrilaterals, and circles. They will also develop problem solving skills by using length, perimeter, area, circumference, surface area, and volume to solve real-world problems. This is an honors course; standardized testing skills and advanced explorations will also be presented.

**Prerequisite:** 80% or better in Honors Algebra 1 or special teacher recommendation and **achievement of Proficient or Advanced on the Algebra 1 Keystone Exam.**



---

<b>CP Geometry</b>	<b>4022</b>	<b>Grades 9 –11</b>	<b>1 credit</b>
--------------------	-------------	---------------------	-----------------

---

In this course, students will develop reasoning and problem solving skills as they study topics such as congruence and similarity of triangles, and apply properties of lines, triangles, quadrilaterals, and circles. They will also develop problem solving skills by using length, perimeter, area, circumference, surface area, and volume to solve real-world problems. This is a college preparatory course; standardized testing skills will also be presented and explored.

**Prerequisite:** *Successful completion of CP Algebra 1 or special teacher recommendation.*

---

<b>Geometry</b>	<b>4023</b>	<b>Grades 10 - 12</b>	<b>.5 credit</b>
-----------------	-------------	-----------------------	------------------

---

Students will explore basic geometric concepts, explorations and activities that build on their previous math courses, including Algebra 1. Concepts such as distance, ratios, congruence and similarity, transformations, circumference and area, and topics such as angles and lines, triangles, and polygons will be covered. Students will make connections to algebra, and to the real world through applications. They will explore these concepts and topics in various ways, including the use of current technology.

**Prerequisite:** *Successful completion of Algebra 1.*

---

<b>Honors Algebra 2</b>	<b>4031</b>	<b>Grades 10 -11</b>	<b>1 credit</b>
-------------------------	-------------	----------------------	-----------------

---

This course builds upon the concepts explored in Algebra 1 and Geometry. The course is organized around families of functions, including linear, quadratic, exponential, logarithmic, radical, and rational functions. As the students study these functions, they will learn to represent them as equations, tables, and graphs. They will also study coordinate geometry and model real world problems using functions. In addition to the algebra content, this course features lessons that incorporate data analysis, geometry, and trigonometry.

**Prerequisite:** *80% or better in Honors Geometry or special teacher recommendation, Achievement of Proficient or Advanced score on the Algebra 1 Keystone Examination.*

---

<b>CP Algebra 2</b>	<b>4032</b>	<b>Grade 10 - 12</b>	<b>1 credit</b>
---------------------	-------------	----------------------	-----------------

---

This course builds upon the concepts explored in Algebra 1 and Geometry. The course is organized around families of functions, including linear, quadratic, exponential, logarithmic, radical, and rational functions. As the students study these functions, they will learn to represent them as equations, tables, and graphs. They will also study coordinate geometry and model real world problems using functions. In addition to the algebra content, this course features lessons that incorporate data analysis, geometry, and trigonometry.

**Prerequisite:** *70% or better in CP Geometry, 90% or better in Intermediate Algebra or teacher recommendation.*

---

<b>Algebra 2</b>	<b>4033</b>	<b>Grade 10 - 12</b>	<b>1 credit</b>
------------------	-------------	----------------------	-----------------

---

This course builds upon the concepts explored in Algebra 1 and Geometry, and will focus more on the applications of those skills. The course is organized around the families of functions that include linear and quadratic relationships. The students will learn how to solve and graph both linear and quadratic equations. As the students study these functions, they will learn to represent them as equations, tables, and graphs. They will also study coordinate geometry and model real world problems using functions. In addition to the algebra content, this course features lessons that incorporate data analysis, geometry, and trigonometry.

**Prerequisite:** *Successful completion of Algebra 1 and Geometry, or teacher recommendation*

---

<b>Intermediate Algebra A</b>	<b>4058</b>	<b>Grade 11</b>	<b>.5 credit</b>
-------------------------------	-------------	-----------------	------------------

---

This course builds upon the concepts explored in Algebra 1. This course will cover Operations with Real numbers and Expressions, Linear Equations and Inequalities and Systems of Equations and Inequalities. An emphasis will be placed on organization and problem solving using a variety of methods.

*Prerequisite: Successful completion of Algebra 1.*

---

<b>Intermediate Algebra B</b>	<b>4059</b>	<b>Grade 11</b>	<b>.5 credit</b>
-------------------------------	-------------	-----------------	------------------

---

This course builds upon the concepts explored in Algebra 1. This course will cover Functions, Graphing and writing linear equations, and Data Analysis. An emphasis will be placed on organization and problem solving using a variety of methods.

*Prerequisite: Successful completion of Algebra 1.*

---

<b>CP Trigonometry</b>	<b>4035</b>	<b>Grades 11- 12</b>	<b>.5 credit</b>
------------------------	-------------	----------------------	------------------

---

The course will cover the properties and real-world applications of trigonometric functions using a traditional approach. The course will emphasize solving triangles by finding area, missing sides and angles, the development of graphs using trigonometric functions, and commonly used trigonometric identities. Polar coordinates as well as a circular function approach to trigonometry may also be explored.

*Prerequisite: Successful completion of Algebra 2 or teacher recommendation.*

---

<b>CP Probability &amp; Statistics</b>	<b>4036</b>	<b>Grades 11 -12</b>	<b>.5 credit</b>
--	-------------	----------------------	------------------

---

This course is designed to provide opportunities for students to learn about statistics and elementary probability theory. Students will explore how to collect, organize, analyze, and interpret numerical data. Real world problems and applications will be presented to help students use statistics and probability in the decision making process.

*Prerequisite: Successful completion of Algebra 2 or teacher recommendation.*

---

<b>Honors Pre-Calculus</b>	<b>4041</b>	<b>Grade 11</b>	<b>1 credit</b>
----------------------------	-------------	-----------------	-----------------

---

This course is primarily for students desiring a full academic preparation before entering calculus at the high school level. It includes a study of advanced algebra, trigonometry, and an introduction to calculus topics such as limits and continuity. This will provide the student with the mathematical background necessary for advanced placement or college prep calculus.

*Prerequisite: Completion of Honors Algebra 2 with a minimum 85% grade and teacher recommendation, Achievement of Proficient or Advanced score on the Algebra 1 Keystone Examination.*

---

<b>CP Calculus</b>	<b>4042</b>	<b>Grade 12</b>	<b>1 credit</b>
--------------------	-------------	-----------------	-----------------

---

This course will review advanced algebra and trigonometric topics. It will include the study of the definitions and theorems of limits and continuity. Methods of differentiation and integration of polynomial, logarithmic and exponential functions, along with various applications of the derivative and integral will be covered. This course prepares the student to experience success in a college calculus setting.

*Prerequisite: Completed Honors Pre-Calculus with a minimum 75% grade or Advanced Mathematics with a minimum 80% grade and teacher recommendation, Achievement of Proficient or Advanced score on the Algebra 1 Keystone Examination.*

---

<b>CP Advanced Mathematics</b>	<b>4043</b>	<b>Grade 11 -12</b>	<b>1 credit</b>
--------------------------------	-------------	---------------------	-----------------

---

This course is primarily for students desiring a full academic preparation of advanced algebra and trigonometry before entering college. It includes a thorough study of trigonometry, further concepts of algebra, and an introduction to calculus. This will give the student a background for continuing the study of mathematics in college or for meeting college entrance requirements.

*Prerequisite: Completed CP Algebra 2 with a minimum 75% grade and teacher recommendation*

---

<b>Consumer Math</b>	<b>4048</b>	<b>Grade 12</b>	<b>1 credit</b>
----------------------	-------------	-----------------	-----------------

---

This course serves as a continuation of topics presented in Algebra 1, Geometry, and Intermediate Algebra. This course will also include important concepts of Probability and Statistics. It will also develop the students' problem solving skills through the exploration of “real world” and “consumer math” applications.

---

<b>Advanced Placement Calculus</b>	<b>4051</b>	<b>Grade 12</b>	<b>1 credit</b>
------------------------------------	-------------	-----------------	-----------------

---

An advanced placement course in mathematics consists of a full academic year of work in calculus and related topics comparable to courses offered at colleges and universities. It is expected that students who elect to take A. P. Calculus will seek college credit and/or placement from an institution of higher learning. The College Board gives the AP test for college credit in the spring and the cost of the test will be the responsibility of the student. Students will also be required to purchase a graphing calculator (minimally TI 83 Plus, preferably TI 84 or TI 89).

The course is intended for students who have a thorough understanding of college preparatory mathematics: including algebra, axiomatic geometry, trigonometry, and analytical geometry. AP Calculus is a course in introductory calculus with functions. A list of topics includes: properties of functions, limits, derivatives, anti-derivatives, and applications, techniques of integral calculus and applications of the definite integral.

*Prerequisite: A 90 % average in Honors Pre-Calculus or Advanced Math, and teacher recommendation, Achievement of Proficient or Advanced score on the Algebra I Keystone Examination. Extensive summer preparation is required.*

---

<b>Honors Calculus 2</b>	<b>4045</b>	<b>Grade 12</b>	<b>1 credit</b>
--------------------------	-------------	-----------------	-----------------

---

This advanced mathematics consists of a full academic year of work in calculus and related topics comparable to courses offered at colleges and universities. Calculus 2 is a further exploration of differential and integral calculus. It includes transcendental functions, methods of integration, improper integrals and L'Hôpital's rule, conics, parametric equations, polar coordinates, dot and cross products of vectors and vector calculus in 2- and 3-dimensional space. Students taking this course MUST have a strong and thorough understanding of algebra. A thorough understanding of geometry and trigonometry are also helpful. Students who seek to enter college with a major in a mathematics or hard science discipline (mathematics, engineering, physics, etc.) and meet the prerequisite are strongly encouraged to take Calculus II. Other students may choose to take the class, but it will be less directly applicable to their college/career choices. Though not specifically designed as preparation for the Calculus BC test offered by The College Board, students taking this course will cover the bulk of material included on that exam and could take it if they choose. The College Board gives the AP test for college credit in the spring and the cost of the test will be the responsibility of the student.

**Prerequisite:** A 70% average or better in AP Calculus or teacher recommendation, **Achievement of Proficient or Advanced score on the Algebra I Keystone Examination.**

---

<b>Advanced Placement Statistics</b>	<b>4061</b>	<b>Grade 11 - 12</b>	<b>1 credit</b>
--------------------------------------	-------------	----------------------	-----------------

---

An Advanced Placement (AP) course in mathematics that consists of a full academic year of work in statistics and related topics comparable to courses offered at colleges and universities. It is expected that students who elect to take AP Statistics will seek college credit and/or placement from an institution of higher learning. The College Board gives the AP test for college credit in the spring and the cost of the test will be the responsibility of the student. Students will also be required to purchase a graphing calculator (TI 84+ or TI-Nspire).

The course is intended for students who have a thorough understanding of college preparatory mathematics: including Algebra, Geometry, and Algebra 2. *Topics include summarizing and investigating data, descriptive statistics, and probability distributions, sampling methods and distributions, hypothesis testing, regression and correlation analysis. Real world applications are routine in this. Critical thinking is emphasized in this course and is extremely important for student success. AP Statistics requires excellent study habits and a commitment of significant time outside of class.*

**Prerequisite:** *An 80% average in Honors Algebra 2 or successful completion of Honors Pre-Calculus, Calculus I, CP Advanced Mathematics with teacher recommendation, **Achievement of Proficient or Advanced score on the Algebra 1 Keystone Examination.** Can be taken concurrently with Honors Pre-Calculus. Extensive summer preparation is required.*

---

<b>AP Computer Science Principles</b>	<b>7137</b>	<b>Grades #####</b>	<b>1 credit</b>
---------------------------------------	-------------	---------------------	-----------------

---

The AP Computer Science Principles course is designed to be equivalent to a first-semester introductory college computing course. In this course, students will develop computational thinking vital for success across all disciplines, such as using computational tools to analyze and study data and working with large data sets to analyze, visualize, and draw conclusions from trends. The course is unique in its focus on fostering student creativity. Students are encouraged to apply creative processes when developing computational artifacts and to think creatively while using computer software and other technology to explore questions that interest them. They will also develop effective communication and collaboration skills, working individually and collaboratively to solve problems, and discussing and writing about the importance of these problems and the impacts to their community, society, and the world.

## **MATH ELECTIVES**

---

<b>College Entrance Exam Prep (SAT and ACT)</b>	<b>7735</b>	<b>Grades 11</b>	<b>.25 credit</b>
---	-------------	------------------	-------------------

---

This is an intensive and challenging course designed to prepare students for the Mathematics section of the SAT and ACT. It will offer strategies and tactics for taking the test along with review of specific math topics. College and career exploration will also be emphasized. (*Students enrolling in this course must also register for SAT Prep English*)

**Prerequisite:** *11th graders who are currently enrolled in CP Algebra 2 or above, have successfully completed CP Geometry or teacher recommendation.*

---

<b>Keystone Math 1 (spring only)</b>	<b>4080</b>	<b>Grade 9</b>	<b>.5 credit</b>
--------------------------------------	-------------	----------------	------------------

---

This course is designed to be a supplement to the standard CP Algebra 1 course and the content of this course is based on the Common Core Standards. We utilize the Carnegie Learning Algebra 1 curriculum. This course will cover topics necessary to build a strong mathematical foundation for algebraic concepts to prepare students for proficiency on the Keystone Examination. Using *Mathia* software, students will have the opportunity to work with an artificial intelligence model that will identify their areas of weakness in the mastery of mathematical concepts, and help them overcome these difficulties.

*Excellence and Buc Pride*

*This is a semester course that will be taken concurrently with CP Algebra 1.*

**Keystone Math 2 (fall only)**

**4081**

**Grade 10**

**.5 credit**

---

This course is designed to be a supplement to the standard Algebra 1 or Intermediate Algebra course and the content of this course is based on the Common Core Standards. We utilize the Carnegie Learning Algebra 1 curriculum. This course will cover topics necessary to build a strong mathematical foundation for algebraic concepts to prepare students for proficiency on the Keystone Examination. Using *Mathia* software, students will have the opportunity to work with an artificial intelligence model that will identify their areas of weakness in the mastery of mathematical concepts, and help them overcome these difficulties.

*This is a semester course that will be taken concurrently with 10th grade Algebra I, as space allows.*

## **MUSIC PROGRAM**

---

<b>Choir</b>	<b>7415</b>	<b>Grades 9 -12</b>	<b>1 credit</b>
--------------	-------------	---------------------	-----------------

---

Open to students in ALL levels. Open to ALL grades. The goal of this course is to develop the vocal technique and choral ensemble skills necessary to perform major choral works. Students are required to sing in two major concerts per year (Winter Concert, Spring Concert). Course outcomes and expectations are: Apply techniques and music theory learned to choral literature from all styles and periods; Develop a commitment to excellence in choral performance and concert presence; Develop leadership and teamwork skills; optionally Compete for positions in Pennsylvania Music Educator Association festival choruses; Experience Community Involvement in Music.

---

<b>Band</b>	<b>7416</b>	<b>Grades 9 -12</b>	<b>1 credit</b>
-------------	-------------	---------------------	-----------------

---

This course is offered for any student who would like to perform instrumental music. Individual and small group lessons will be offered during the school day. All students signing up for this class must be able to read music and participate in the lesson program. Percussionists must be able to read rhythmic notation, melodic notation and perform on both battery and mallet percussion instruments. Percussionists will be screened during the first week of school to assure they meet this prerequisite. Students are required to supply their own musical instrument unless other arrangements have been made with the instructor. Percussionists are required to supply snare sticks, timpani mallets, yarn mallets and stick bag.

---

<b>Combination Band/Choir</b>	<b>7419</b>	<b>Grades 9 -12</b>	<b>1 credit</b>
-------------------------------	-------------	---------------------	-----------------

---

This course is for the student who wants to participate in both band and choir. Students will follow curriculum from the full credit band and full credit choir courses, during the same class period. Students will rotate on a day by day basis from band to choir and will be required to participate in both the winter and spring concerts.

---

<b>Beginning Piano</b>	<b>7455</b>	<b>Grades 9 - 12</b>	<b>.5 credit</b>
------------------------	-------------	----------------------	------------------

---

This is a half-year class for beginner students who have never played piano. The goal of this course is to develop basic techniques for performing, reading and writing music notation for piano; learning correct fingerings and simple songs in different keys. Piano keyboards are provided for students.

---

<b>Piano 2</b>	<b>7461</b>	<b>Grades 9 -12</b>	<b>.5 credit</b>
----------------	-------------	---------------------	------------------

---

This half-year course for intermediate piano students comfortable with performing, reading and writing music notation on piano as studied in Beginning Piano 1. Piano keyboards are provided for students. This class continues in the method book used in the first course and will focus on more challenging repertoire. Students will play in new keys and hand positions.

*Prerequisite: Successful completion of Beginning Piano*

---

<b>Beginning Guitar</b>	<b>7456</b>	<b>Grades 9 - 12</b>	<b>.5 credit</b>
-------------------------	-------------	----------------------	------------------

---

This is a half-year course for beginner guitarists. The goal of this course is to develop basic techniques for performing, reading and writing notation for guitar; learning open chords + simple songs and etudes in different keys for strumming and finger picking.

---

<b>Guitar 2</b>	<b>7460</b>	<b>Grades 9 -12</b>	<b>.5 credit</b>
-----------------	-------------	---------------------	------------------

---

This is a half-year course for intermediate guitar students comfortable with performing, reading and writing music notation on guitar as studied in Beginning Guitar 1. This class continues developing techniques for performing, reading and writing notation for guitar and will focus on more challenging repertoire; learning chord extensions and Barre Chords + songs and etudes in new keys for strumming and finger picking.

*Prerequisite: Successful completion of Beginning Guitar*

---

<b>Digital Audio</b>	<b>7457</b>	<b>Grades 9 - 12</b>	<b>.5 credit</b>
----------------------	-------------	----------------------	------------------

---

This course is designed to familiarize students with basic elements of music theory and of music production. Students will learn the basics of major and minor tonalities and will compose and arrange pieces using notation software. Students will use a sequencing program to record, edit and mix audio and MIDI data. Students will create multimedia using Garageband, iPhoto, and iTunes.

---

<b>Music Theory</b>	<b>7425</b>	<b>Grades 10 - 12</b>	<b>1 credit</b>
---------------------	-------------	-----------------------	-----------------

---

**Music Theory is a flagship Music course for those seriously interested in music or contemplating a career in music.** The course, through daily projects, classwork and homework, will cover: notation and analysis of pitch, harmony, meter, form, and rhythm; ear training; key signatures; major, minor and modal scales; intervals; chords and seventh chords; music in history; composition and arranging; transposition. Students are expected to complete written assignments such as analyzing different aspects of music, writing an original melody and harmonizing by using standard harmonic progressions. It is recommended that students know how to read music and play an instrument or sing before they begin the course.

*Prerequisites: Conference with Music Theory instructor is necessary prior to registration for this class*  
*ALONG WITH: Student must have taken and passed any of the following courses: Concert Band, Concert Choir, Guitar, or Piano.*

**PHYSICAL EDUCATION AND HEALTH EDUCATION PROGRAM**

**HEALTH**

**Health 9** **8016** **.25 credit**

This course is a state required, conceptual course for freshman designed to assist students in developing the knowledge, attitudes and skills necessary for productive, self-directed behavior. The lessons in the curriculum are keyed to reducing risk factors and steps of refusal skills, which will enable students to develop responsible behavior, positive self-esteem, and respect for others. The course also will explore the plight of mental illness and substance abuse among teens, and identify prevention/intervention strategies to combat these issues as a teen.

**Health 10** **8026** **.25 credit**

This is a state required, conceptual course for sophomores. It is designed to give students exposure to topics concerning everyday life and touches upon the serious problems prevalent in modern society. 10<sup>th</sup> grade health is specifically designed for human sexuality and all the areas discussed which include: Basic Human Sexuality, Anatomy of the female and male reproductive organs, responsible relationships, sexual abuse, pregnancy and development before birth, contraception, sexually transmitted infections and HIV/AIDS.

**PHYSICAL EDUCATION**

<b>Physical Education</b>	<b>8015</b>	<b>Grade 9</b>	<b>.25 credit</b>
	<b>8025</b>	<b>Grade 10</b>	<b>.25 credit</b>
	<b>8035</b>	<b>Grade 11</b>	<b>.5 credit</b>
	<b>8046</b>	<b>P.E. Majors</b>	<b>.5 credit</b>
		<b>P.E. Majors</b>	<b>.5 credit</b>
	<b>8055</b>	<b>P.E. ELECT</b>	<b>1 credit</b>

Physical Education is required of students in 9<sup>th</sup> and 10<sup>th</sup> grades every other day for one semester for .25 credits for each course (0.5 credits total). In 11th grade, physical education is required every day for one semester (0.5 credits). The Graduation Requirement for physical education is 1.00 credit. Each semester is divided into four (4) activity periods. The activities vary for each class and are coordinated based on the number of classes scheduled into the gymnasium each period. All students are required to purchase a physical education t-shirt as part of the dress code policy. The physical education department this year has developed a physical education sweatshirt, which has the same design as the T-shirt to stay in line with the dress code policy. Cost of the t-shirt is \$5.00/Cost of the Sweatshirt is \$15.00.

Typically, outdoor activities include but are not limited to ultimate Frisbee, softball, soccer, lacrosse, lawn/recreational games, invasion games, kickball and touch football. Indoor activities include basketball, volleyball, indoor soccer, team handball, floor hockey, matball, bombardment, lacrosse, tchoukball, tennis, eclipse ball, flickerball, speedball and other cooperative activities. When students cannot participate in the prescribed activity, alternative or adaptive programs may be provided to the student. Such activities might include written assignments, bulletin board construction, out-patient prescribed physical therapy, school-based projects, walking, weight training, or aerobics.

9 & 10<sup>th</sup> Grade students will be completing a semester long assignment titled the 50 step challenge. The assignment is a semester long project, which aligns with our mission and philosophy, to help promote



growth for each and individual student's physical activity levels. Students will track and describe the benefits of each piece of physical activity that is performed throughout the semester.

11<sup>th</sup> grade students will be completing a semester long project assignment by developing their own lifelong activity plan. Students will develop and implement a personal fitness plan based on self- assessment and goal setting, understand physiological changes that result from training, and understand the health benefits of regular participation in activity.

Students will be graded in Physical Education based on four criteria:

- 1- Preparation for class - students will adhere to stated policy on dress requirements and will receive appropriate deductions when not prepared for class.
- 2- Affective Evaluation - based on the student's self-motivation, cooperation, ability to work in groups, leadership skills, and attitude toward Physical Education.
- 3- Physical Fitness Tests - scores based on national norms presented by the Marine Physical Fitness Test and adjusted according to the needs of the students of Interboro High School.
- 4- Effort Evaluation- students will adhere to the stated policy on maintain an exercise heart rate, reaching the required amount of steps with their pedometers, attempting to execute a skill, and students will engage with pace of activity.

The methods, techniques, and emphasis of implementation of the criteria will be devised by the individual teacher. The teacher is responsible for the justification of his/her students' grades.

Students with long-term medical disabilities who cannot participate at all during the entire year will be dropped from the class and their requirement will be reassigned to the following year. Students with short-term medical disabilities will participate in an adaptive program or work with the teacher to find a method of justification for their grade.

---

<b>Physical Education Major</b>	<b>8046 (fall)</b>	<b>Grade 12</b>	<b>.5 Credit</b>
---------------------------------	--------------------	-----------------	------------------

---

This program is designed for students who have an interest in education, physical education, athletic training, physical therapy, coaching, or any other leadership or kinesiology fields. Students in this program will be scheduled for physical education every day for the semester. The course will be worth one (.50) credits, students will be assigned with a specific teacher for instruction on the requirements and responsibilities of the course. A major requirement for this course is for the physical education major's to join the UNIFIED SPORTS team here at Interboro High School. This gives the students experience with working with individuals who have disabilities and an opportunity for a senior project. Other requirements for the course will include study of the rules, regulations, breakdown of skills, and some history of the activities presented to the general student body. Students will learn techniques involved with officiating certain games in the general physical education curriculum.

The P. E. Major course will fulfill the regular P. E. requirements which must be satisfied by seniors. The methods, techniques, and emphasis of implementation of the criteria will be devised by the individual teacher. The teacher is responsible for the justification of his/her students' grades.

Junior students may apply to the Gym Major Program in the second semester. Students must meet the criteria established by the Physical Education department to be considered for the course.

---

<b>Physical Education Major</b>	<b>(spring)</b>	<b>Grade 12</b>	<b>.5 Credit</b>
---------------------------------	-----------------	-----------------	------------------

---

This program is designed for students who have an interest in education, physical education, athletic training, physical therapy, coaching, or any other leadership or kinesiology fields. The second part to the program will have the students designated to an assigned teacher and will act as an assistant in those classes. Gym majors will be required to assist teachers in administering physical fitness and skill tests to students in the regular classes. Logistical concepts will be presented including care of gymnasium

Facilities and equipment. Students will assist in developing hand-outs, tests, and other pertinent materials necessary for conducting an organized physical education program. Students will also apply and teach a designated activity to their assigned physical education class.

The P. E. Major course will fulfill the regular P. E. requirements which must be satisfied by seniors. The methods, techniques, and emphasis of implementation of the criteria will be devised by the individual teacher. The teacher is responsible for the justification of his/her students' grades.

Junior students may apply to the Gym Major Program in the second semester. Students must meet the criteria established by the Physical Education department to be considered for the course.

---

<b>P.E. Elect</b>	<b>8055</b>	<b>Grade 9 - 12</b>	<b>1 Credit</b>
-------------------	-------------	---------------------	-----------------

---

This class is designed for students with physical and intellectual disabilities to perform every activity offered in the general physical education curriculum but implementing special designed instruction and accommodation for personal achievement.

---

<b>Contracted Physical Education</b>	<b>8040</b>	<b>Grade 11-12</b>	<b>.5 Credit</b>
<b>15 semester hours</b>			<b>Fall Semester</b>

---

This course provides an alternative option for those students whose schedule will not allow them to take physical education during the school day. The class will run after school from 3:00-4:00pm, two days per week, for one semester. The class will be led by a certified physical education teacher here in the district.

Student admission into Contracted Physical Education will be based on six criteria:

- 1- Schedule is completely filled junior year with content core classes.
- 2- Student cannot have failed physical education in 9<sup>th</sup> or 10<sup>th</sup> grade (those students must remediate by taking the course in summer school).
- 3- Students will go through a 15 semester hour program designed by a physical education teacher and they must be there for all 15 sessions to get full credit.
- 4- Playing a sport/going to a fitness center DOES NOT meet the requirements for the class.
- 5- Student will be receiving instruction from a certified physical education teacher from within the district.
- 6- This course only provides an alternative option for a student to receive physical education credit and is not designed to take the place of the physical education program here at the high school.

---

<b>Contracted Physical Education</b>	<b>8040</b>	<b>Grade 11-12</b>	<b>.5 Credit</b>
<b>15 semester hours</b>			<b>Spring Semester</b>

---

This course provides an alternative option for any student dealing with an illness (mental or physical) which doesn't allow for the student to take the class within the school day. The class will run after school from 3:00-4:00pm, two days per week, for one semester. The class will be led by a certified physical education teacher here in the district.

Student admission into Contracted Physical Education will be based on five criteria:

- 1- Student must have a diagnosable condition, prescribed by a doctor, whether it be physical or mental.
- 2- Student cannot take the course because they do not like their teacher or class period. Administration and physical education teachers will approve on a case-by-case basis.
- 3- Students will go through a 15 semester hour program designed by a physical education teacher and they must be there for all 15 sessions to get full credit.
- 4- Student will be receiving instruction from a certified physical education teacher from within the district.
- 5- This course only provides an alternative option for a student to receive physical education credit and is not designed to take the place of the physical education program here at the high school.

## SCIENCE PROGRAM

All students graduating from Interboro High School must have successfully completed three years of science. Those planning to pursue a post-secondary education should take at least four science courses, including courses from the five major disciplines of science - Biology, Chemistry, Earth/Space, Environmental/Ecology and Physics. There are courses available in all of these fields. In addition, there are Advanced Placement courses offered which are college level and give the student the opportunity to earn college credit while still in High School. A student enrolling in these courses must be prepared to do college-level work.

Students planning to enter the world of work immediately after High School may wish to follow the Academic Track. The course selections for this track are geared more toward the applications than the theoretical side of science. Those interested in becoming health care technicians may want to pursue the Allied Health Academic Careers Pathway. (See course descriptions for more details). Students entering this program should be prepared to work outside of the classroom as well as inside.

The following pages spell out the course offerings in more detail, but we've also included a four year overview with suggested courses based on student preferences as well as abilities. In 11th and 12th grade more than one science course may be taken. Core courses which should be taken are in italics. Additional courses would be considered electives. Note that these are suggestions only. Individual students have individual needs.

**\*\*\* Note due to the new weight configuration the Science progression will change beginning with the class of 2019. Current Science configuration will remain in place through the 2017-2018 school year.**

	<u>9<sup>th</sup> Grade</u>	<u>10<sup>th</sup> Grade</u>	<u>11<sup>th</sup> Grade</u>	<u>12<sup>th</sup> Grade</u>
<i>Honors:</i>	<i>Honors Biology</i>	<i>Honors Chemistry</i>	<i>Honors Physics AP Biology</i>	<i>AP Physics AP Biology</i>
<i>College Prep:</i>	<i>CP Integrated Science</i>	<i>CP Biology Adv. Bio- Anatomy Adv. Bio- Environ</i>	<i>CP Chemistry Adv. Bio- Anatomy Adv. Bio- Environ. CP Physical Science</i>	<i>CP Physics Adv. Bio- Anatomy Adv. Bio- Environ. CP Earth &amp; Space Further Studies in Chem. &amp; Phy.</i>
<i>Allied Health:</i>	<i>Integrated Science</i>	<i>Biology</i>	<i>Allied Health I</i>	<i>Allied Health II</i>
<i>Academic</i>		<i>Biology</i>	<i>Physical Science</i>	<i>Physical Science Earth &amp; Space</i>



---

<b>Advanced Placement Biology</b>	<b>5051</b>	<b>Grades 11 -12</b>	<b>1 credit</b>
-----------------------------------	-------------	----------------------	-----------------

---

In the Advanced Placement Biology class the student will explore theories, concepts and issues related to the field. Students will master critical thinking skills and demonstrate an ability to write, speak, and interpret material on a college level. Culmination of the course will involve preparation for the Advanced Placement examination in Biology.

**Prerequisite:** *90% in Biology and Chemistry, Achievement of Proficient or Advanced score on the Algebra I and Biology Keystone Examinations, teacher recommendation and parental permission.*

*\*A summer reading assignment is required and students enrolling in this course need to pick up that assignment before the end of this year.*

---

<b>Allied Health I</b>	<b>5045</b>	<b>Grades 11 - 12</b>	<b>1 credit</b>
------------------------	-------------	-----------------------	-----------------

---

This is science, encompasses the essence of biology, chemistry and medicine that challenges students. It prepares them for training that should lead to employment in hospitals as an EMT, Medical Assistant, Technologist, Nursing Assistant, Therapist and more; private sector clinics, research facilities, industrial and environmental laboratories, pharmacies, insurance companies, medical secretary and sales.

Students will explore medical terminology, patient care, health care practices, anatomy, physiology, vital signs, making and recording observations, measurement, and CPR. During the first semester students will spend time at a career fair and other sites, meeting with their personnel, to investigate a variety of Allied Health careers.

**Prerequisites:** *Successful completion of 9th and 10th grade courses, especially those in math and science with an 80% proficiency or better and an expressed desire to pursue an Allied Health career. Entrance into the AHACP is subject to the approval of its instructor, prior to acceptance in 11th grade.*

---

<b>Allied Health II</b>	<b>5055</b>	<b>Grade 12</b>	<b>1 credit</b>
-------------------------	-------------	-----------------	-----------------

---

This course is a continuation of Allied Health I and also focuses on anatomy and medical terminology. During the year students must complete at least 30 hours of field experience at local health care facilities.

**Arrangements are to be made by the student** between the end of the first year and the beginning of the second year of the AHACP program, with the assistance of both **Interboro's Guidance Department and the Instructor**. They will continue to work closely with both Guidance and the Instructor in completing their plans for further education and career choices.

**Prerequisites:** *Successful completion of AHACP I with an 80% or better average and Instructor approval of overall performance.*

### **CHEMISTRY COURSES**

---

<b>Honors Chemistry</b>	<b>5021</b>	<b>Grade 10</b>	<b>1 credit</b>
-------------------------	-------------	-----------------	-----------------

---

This course entails a sequential development of major chemical principles. The student will study the properties of matter, its structure and the changes that it undergoes. Problem solving skills are emphasized.

**Prerequisites:** *Achievement of Proficient or Advanced score on the Algebra I and Biology Keystone Examinations, Completion of Honors Geometry, Completion of Honors Algebra I.*

---

<b>CP Chemistry</b>	<b>5032</b>	<b>Grades 11 - 12</b>	<b>1 credit</b>
---------------------	-------------	-----------------------	-----------------

---

This course is for the serious student intent on college. Major chemical principles will be studied, including the properties of matter, its structure, and the changes that it undergoes. Problem solving skills are emphasized, necessitating strong algebra skills.

**Prerequisites:** An 84% or higher in CP Geometry and an 84% or higher in CP Algebra I. **Achievement of Proficient or Advanced score on the Algebra I and Biology Keystone Examinations. Non-proficient students may only enroll in CP Chemistry if CP Physical Science is taken concurrently.**

---

<b>CP Physical Science</b>	<b>5037</b>	<b>Grades 11 - 12</b>	<b>1 credit</b>
----------------------------	-------------	-----------------------	-----------------

---

This course is designed for the serious student intent on college who did not score proficiently on the Keystone Biology Exam. This is a Physical Science course that integrates basic concepts of **chemistry, organic chemistry, biochemistry, and physics**. The curriculum is connected to personal and societal issues whereby basic chemical concepts are applied to real world situations and biological systems. In addition, other physical concepts are explored in practical circumstances. Students are required to keep a notebook, complete laboratory investigations, and pass quizzes and tests. This class is laboratory based where problem solving skills are emphasized, necessitating strong algebra skills.

**Prerequisites:** An 80% or higher in CP Geometry and an 80% or higher in CP Algebra I. **Successful completion of Biology.**

---

<b>Physical Science</b>	<b>5033</b>	<b>Grades 11 - 12</b>	<b>1 credit</b>
-------------------------	-------------	-----------------------	-----------------

---

This is a Physical Science course that integrates basic concepts of **chemistry, organic chemistry, biochemistry and physics** and is ideal for those who do not contemplate taking formal chemistry and physics courses beyond high school. The curriculum is connected to personal and societal issues whereby basic chemical concepts are applied to real world situations. In addition, other physical concepts are explored in practical circumstances. Students are required to keep a notebook, complete laboratory investigations and pass quizzes and tests.

**Prerequisite:** *Successful completion of Biology.*

---

<b>CP Integrated Science</b>	<b>5012</b>	<b>Grade 9</b>	<b>1 credit</b>
------------------------------	-------------	----------------	-----------------

---

This integrated course is designed to incorporate environmental, biology, and physical science topics. The earth's energy resources, both renewable and non-renewable, will be explored along with societal and sustainability issues. Basic chemistry topics will include the periodic table, bonding and chemical equations. The second semester of this course will include topics to prepare the student for Biology 10 and preparation of the Biology Keystone Exam.

---

<b>Further Studies in Chemistry and Physics</b>	<b>5035</b>	<b>Grade 12</b>	<b>1 credit</b>
---	-------------	-----------------	-----------------

---

This is a lab based Physical Science course that moves beyond basic concepts of Chemistry and Physics and is ideal for those who enjoyed Chemistry and Physics, but do not feel ready for an Advanced Placement course. The curriculum is flexible. There will be core concepts covered by all, but then the students and teacher will decide together which other topics will be covered. The possible units include, but are not limited to, organic chemistry, forensics, waves, geometric optics, statics, thermodynamics, electricity and magnetism. Scientific experimentation and research, as well as the sharing of ideas, will be major components of this course.

**Prerequisite:** *Completion of Chemistry and Physics with a B or better.*

---

<b>CP Earth &amp; Space Science</b>	<b>5038</b>	<b>Grade 11-12</b>	<b>1 credit</b>
-------------------------------------	-------------	--------------------	-----------------

---

This course is designed to provide the college bound student a comprehensive background in the Earth/Space Sciences (Geology, Astronomy, Meteorology, and Oceanography). The heavens will be studied using the Interboro planetarium. Weather and climate will be studied. Other topics will explain the dynamics of the physical earth. **Prerequisite:** for 11<sup>th</sup> grade only you must have passed the Keystone Exam

---

<b>Earth and Space</b>	<b>5040</b>	<b>Grade 12</b>	<b>1 credit</b>
------------------------	-------------	-----------------	-----------------

---

This course is designed to provide the basic knowledge and concepts needed to understand the Earth/Space Sciences (Geology, Astronomy, Meteorology, and Oceanography). The heavens will be studied using the Interboro planetarium. Weather and climate will be studied. Other topics will explain the dynamics of the physical earth.

### **PHYSICS COURSES**

---

<b>Honors Physics</b>	<b>5031</b>	<b>Grades 11 - 12</b>	<b>1 credit</b>
-----------------------	-------------	-----------------------	-----------------

---

In physics, we take natural phenomenon and model it mathematically. In this way we can better understand the real world. Topics that will be introduced include motion, forces, energy, and gravitation. This course will be taught as a “pre-AP Physics” course and is lab intensive.

**Prerequisites:** *Achievement of Proficient or Advanced score on the Algebra 1 and Biology Keystone Examinations, Completion of Honors Geometry and Honors Algebra 2 with a B or better. Student should be enrolled in Advanced Math or Honors Pre-Calculus.*

---

<b>Advanced Placement Physics</b>	<b>5041</b>	<b>Grade 12</b>	<b>1 credit</b>
-----------------------------------	-------------	-----------------	-----------------

---

Preparation for the Calculus based Advanced Placement Physics test will be the primary goal of this course. Students passing this exam may receive college credit at the discretion of the college. Students should only take this course if they are prepared for college level work.

This course stresses problem solving using advanced mathematical techniques and analytical thinking. Topics from Honors Physics will be explored in depth.

**Prerequisites:** *Achievement of Proficient or Advanced score on the Algebra 1 and Biology Keystone Examinations, Students must have completed Pre-Calculus. Students must also have completed Honors Physics, with an 80% or higher, or CP Physics, with a 90% or higher and be currently enrolled in Calculus. Teacher permission and completion of a summer assignment are required (see Physics teacher).*

---

<b>CP Physics</b>	<b>5042</b>	<b>Grades 11-12</b>	<b>1 credit</b>
-------------------	-------------	---------------------	-----------------

---

In Physics we take natural phenomenon and model it mathematically. Topics include motion, forces, energy and momentum, among others. These topics are studied via laboratory investigations and post lab discussions, then applied through problem solving and more labs.

**Prerequisites:** *If taking during 11<sup>th</sup> grade year student must have achieved Proficient or Advanced score on the Algebra 1 and Biology Keystone Examinations, Completion of CP Geometry and CP Algebra 2*

## **SCIENCE ELECTIVE COURSES**

**Aquatic Biology** **5070** **Grades 9 -10** **.5 credit**

Aquatic Biology is a half year course discussing both the marine (ocean) and freshwater ecosystems. The course will cover: components of an aquatic ecosystem, relationships among aquatic habitats and ecosystems, roles of cycles within an aquatic environment, adaptations of organisms and how humans impact those aquatic environments. There will be a special emphasis on our local aquatic environment, John Heinz Refuge. This course will be “hands on” and develop the skills essential for studying science.

**Forensic Science** **5071** **Grades 9 - 10** **.5 credit**

Forensic Science is focused upon the application of scientific methods and techniques to solve problems based on real crime scenes and criminal law. This course is intended to provide an introduction to understanding the science behind crime detection. Scientific methods specifically relevant to crime detection and analysis will be presented with emphasis placed on the techniques used in evaluating physical evidence to solve problems.



## **SOCIAL STUDIES PROGRAM**

<b>US History I</b>	<b>2023</b>	<b>Grade 10</b>	<b>1 credit</b>
<b>The Founding of America (1600-1900)</b>			

United States History I at the Academic level studies the history of our nation from its early settlement through the beginning of the twentieth-century. This course is less content driven than the College Prep version, with a greater focus on the building of skills that are necessary for survival in today's world. Students will still be responsible for keeping a notebook and taking tests- including a midterm and final examination. However, more time will be designated for increasing skills such as reading in the content area. Projects, primary source readings, and carefully constructed essays will help to supplement the historical content that is covered.

<b>US History II</b>	<b>2033</b>	<b>Grade 11</b>	<b>1 credit</b>
<b>America on the World Stage (1900-present)</b>			

The second half of United States History at the Academic level is a continuation of the 10<sup>th</sup> grade course. Students will cover material from the turn of the twentieth century until present times. There will be a heavy focus on the military conflicts and the social issues of the twentieth century. Students will be asked to not only understand the "facts" of history, but how they have impacted the world we live in today. Each student will be asked to keep a notebook, take periodic examinations, read historical documents, construct essays, and complete projects. Students are also responsible for a midterm and final examination.

<b>American Government &amp; Politics</b>	<b>2043</b>	<b>Grade 12</b>	<b>1 credit</b>
---	-------------	-----------------	-----------------

This Academic-level course covers the United States' system of government by examining a number of topics in an effort to create an informed citizenry. The ultimate goal of the course is to make students realize that government, and the decisions made by politicians, affect every aspect of our individual lives. While the major focus of the course is on the federal government, our studies will occasionally delve into the federal government's relationship with state and local governments as well. We will examine the principles of government, including comparison to other forms of government that are present in today's world. We will also cover the United States Constitution, our system of federalism, civil liberties and

civil rights, the three branches of government, and how our government shapes economic policy. In the end, it is our hope that students will be able to understand how each unit of study impacts them individually.

Students will be asked to keep a notebook, complete teacher-developed assignments, tackle a midterm and final examination, and understand how current events impact their everyday lives. Units will feature lesson plans incorporating inquiry-based learning, technology, and primary sources and are compliant with Pennsylvania Department of Education Standards. (<http://www.pdesas.org/Standard/Views#117|777|0|0>)

### **COLLEGE PREPATORY CLASSES**

---

<b>CP Multi-Cultures</b>	<b>2012</b>	<b>Grade 9</b>	<b>1 credit</b>
--------------------------	-------------	----------------	-----------------

---

College Prep Multi-Cultures will trace the development of civilization from evolution through the end of World War I. A chronological and thematic approach will guide students through individual units that include, but are not limited to: river valley civilizations, the Ancient Greeks, the Roman Republic and Empire, the Middle Ages, the Renaissance, Protestant Reformation, and the Age of Absolute Monarchs. The course will conclude with an examination of conflicts between English Parliament and the monarchy, European Revolutions, and finally the First World War.

A college-prep course will entail assignments and lessons that teach students the skills essential for achieving proficiency on Keystone Examinations, and eventually in college. Pennsylvania Department of Education Core Standards <http://www.pdesas.org/Standard/Views#114|14125|0|0> will guide instruction throughout the year. Instruction will ideally move beyond a traditional didactic approach and instead focus on student-centered learning that employs new methods and technologies.

To be successful in this course, students must complete reading assignments from the text, as well as from primary and secondary sources. Students must perform well on quizzes and tests, including a midterm and a final examination. Project-based assessments will also be a large part of the college-prep curriculum, and so too will research-based assessments that require students to produce grade-appropriate writing.

---

<b>CP US History I</b>	<b>2012</b>	<b>Grade 10</b>	<b>1 credit</b>
------------------------	-------------	-----------------	-----------------

---

**The Founding of America (1600-1900)**

United States History I is the first year of a two year journey through the history of our nation. We begin with a look at the settlements of the Southern, Middle, and New England colonies and continue through the Gilded Age and the beginning of the Progressive Movement. In between, we look at the American Revolution, the Constitutional struggle, the Jacksonian Era, and the Civil War and Reconstruction.

The course is broken down into chronological and thematic units and instruction is based on the Understanding by Design model. Through the use of “big ideas” and “essential questions,” students will understand not only the necessary content, but will be able to use that content in practical applications. Each student will be required to keep a notebook, complete projects, take quizzes and tests, understand historical documents, construct essays, and take a midterm and final examination.

---

<b>CP US History II</b>	<b>2032</b>	<b>Grade 11</b>	<b>1 credit</b>
-------------------------	-------------	-----------------	-----------------

---

**America on the World Stage (1900-present)**

United States History II builds upon the work completed during the students' 10<sup>th</sup> grade year. Instructors will offer a continued focus on the test-taking, essay-writing, and the understanding of historical documents. Course requirements are the same as United States History I, but the work is grade appropriate, and therefore slightly more challenging.

The content of United States History II takes students from the turn of the twentieth century and through two world wars, the Korean Conflict, the Cold War, Vietnam, and the wars in the Middle East. Students will also understand the development of urban America, the women's movement, the struggle for equality for African Americans, as well as other social issues.

---

<b>CP American Government &amp; Politics</b>	<b>2042</b>	<b>Grade 12</b>	<b>1 credit</b>
--	-------------	-----------------	-----------------

---

This college-prep course is designed to both introduce students to the United States' system of government, and to help students become informed and active citizens upon graduation. Students will be guided by their instructors through a close study of each unit, while keeping a watchful eye on the goings-on in Washington D.C. The focus of the course will mainly be on the federal government, but it is important to understand that Washington's politics also have a trickle-down effect on what happens at the state and local levels.

Students will learn about the principles of government, the Articles of Confederation and the Constitution, our system of federalism, civil liberties and civil rights, the three branches of government, and the government's development of economic policies. Each unit will include teacher-developed assignments, quizzes and tests, and current events that are relevant to the unit of study. Teachers will design lessons governed by the Pennsylvania Department of Education Core Standards (<http://www.pdesas.org/Standard/Views#117/777/0/0>) that will help students produce grade-appropriate assessments.

*Prerequisites: Recommendation from an 11<sup>th</sup> grade United States History teacher.*

---

<b>Honors Multi-Cultures</b>	<b>2011</b>	<b>Grade 9</b>	<b>1 credit</b>
------------------------------	-------------	----------------	-----------------

---

The Social Studies Department encourages its strongest and most highly motivated students to enroll in Advanced Placement® courses during grades 10-12. However, it is also our belief that students should undergo a year of pre-Advanced Placement® "training" before becoming completely ensconced in the AP-track. Gifted Honors Multi-Cultures provides students with a year of preparation for our department's vast selection of Advanced Placement® offerings.

This course provides an intensive study of the development of civilizations throughout the world. Because we live within a "smaller," more well-connected global economy it is important to recognize the contributions of not just Western civilizations, but also the often-ignored contributions of African and Asian civilizations. Our country's connections to places like China, the Middle East, and Europe will become crystal clear after tracing the historical development of each of these civilizations.

Gifted Honors Multi-Cultures tends to eschew the conventional chronological approach to historical study in favor of a more thematic approach to understanding how closely connected our world has become. Students are responsible for completing teacher-designed assessments, quizzes, tests, and a midterm and final. On top of this, a heavy emphasis on primary source analysis, research, and writing will make up a large portion of class time. Lessons and activities based on Pennsylvania Department of Education Core Standards <http://www.pdesas.org/Standard/Views#114/14125/0/0> will prepare students for both Advanced Placement® courses as well as the type of assignments that are essential for survival in college.

*Prerequisites: Recommendation from an 8<sup>th</sup> grade teacher and Achievement of "Proficient" or "Advanced" status on their 8<sup>th</sup> grade ELA PSSA*



**Advanced Placement European History**      **2021**      **Grade 10**      **1 credit**

---

The Advanced Placement European History course is offered for eligible sophomore students to fulfill the required tenth grade Social Studies credit. It may also be taken as an elective by eleventh and twelfth graders, but will not replace the social studies courses required for those grades. The course is a rigorous program, comparable to an undergraduate college survey course in the given area.

The course begins with an examination of Europe in 1450 and progresses to current times, introducing students to cultural, economic, political, and social developments that play a fundamental role in shaping today's world. Upon completing the course, it is expected that students will develop: (a) an understanding of some of the principal themes in modern European history, (b) an ability to analyze historical evidence, (c) an ability to engage in historical interpretation, and (d) an ability to express historical understanding in writing.

Students that participate in the course are expected to complete assigned summer work and to take the Advance Placement Examination in May, a test in which students demonstrate those abilities needed to pursue upper-level studies at college.

***Prerequisites:***

- *Recommendation from previous Social Studies teacher*
- *Recommendation from the previous grade's English teacher*
- *Student interview*
- *A writing sample typed essay or essay test may be required by the AP teacher*
- *Standardized test scores commensurate with above level achievement*

**AP United States History**      **2031**      **Grade 11**      **1 credit**

---

This course is a full year introductory college level course in United States history. It will be a survey of our history from just prior to the first European explorations to the present. Our political institutions, public policy, social and economic changes, diplomacy, behavior and intellectual developments will be discussed.

Students will be challenged to research and interpret historical evidence. There will be considerable outside readings. Students will be required to keep an organized notebook, complete all assignments, do research, and write extensively. They should also be prepared to attend special classes outside of regular school hours, particularly in the spring. The goal of the course is to prepare students for the breadth and depth of work necessary to be successful in the AP United States History exam in May.

There is a mandatory summer assignment associated with this course. All summer work is due on the first day of school.

Students who opt for this course should be highly motivated and have the willingness and ability to meet this academic challenge.

***Prerequisites:***

- *Recommendation from one previous social studies teacher or conference with the APUSH instructor.*
- *Achievement of a Proficient or Advanced score on the Keystone Literature Examination.*

**AP United States Government & Politics                      2041                      Grade 12                      1 credit**

This course is a full year introductory course in United States government and politics and includes both the study and the analysis of general concepts used to interpret U.S. politics. Students will cover topics that include, but are not limited to: framework of the United States government and the Constitution; federalism; public opinion and political participation; civil liberties and civil rights; political parties; elections and campaigns; interest groups and the media; the three branches of government; the federal bureaucracy; and policy making.

Each student will complete summer assignments that are provided to them at the conclusion of their junior year; these assignments will be due on the first day of school of their senior year. Students are asked to complete guided readings on each chapter, attend class on a daily basis, and complete outside readings that are assigned. Each chapter will include an Advanced Placement-style examination that includes objective and free response questions. Students will be prepared for each examination with a thorough review and question and answer session preceding the exam. The ultimate goal of the class is for each student to take and achieve a passing grade on the Advanced Placement Exam in May. Students are also expected to attend evening reviews in the spring in preparation for the examination, although they are not mandatory.

Students who select this course should be highly motivated and have the willingness and ability to meet the academic challenge.

***Prerequisites:***

- *Recommendation from one previous social studies teacher, or a conference with the AP Government instructor.*
- *Achievement of Proficient or Advanced score on the Keystone Literature Examination.*

**SOCIAL STUDIES ELECTIVES**

**Contemporary Legal Issues                      2015                      Grades 9-12                      .5 credit**

The focus of this course is on individual civil rights and civil liberties in America. The provisions of the Bill of Rights (1<sup>st</sup> through 10<sup>th</sup> amendments) will be studied closely together with all aspects of criminal procedure from suspicion of committing a crime through sentencing. Other topics that will be investigated include, but are not limited to, ethics, lawmaking, nature of crime, U.S. court structure, consumer and housing law, and rights and responsibilities in the workplace. The class will also have a constant eye on the current legal world by using various technologies inside and outside of the classroom. The combined use of technology (laptop stations), newspapers, magazines, and curricular material will provide students with many opportunities to apply their knowledge in various discussions and debates. Students will also be required to participate in mock trials and congressional hearings. This is an excellent class for those who like to think and debate.

**Psychology                      2035                      Grades 11 -12                      .5 credit**

This course is a broad introduction to contemporary psychology which is explored as a science, a profession, and a means of promoting human welfare. Students are exposed to psychology as a natural and social science through reading assignments, group work, lectures, discussions, and demonstrations. The historical foundations of psychology will be studied along with current psychological disorders coinciding with their treatments.

**Sociology** **2036** **Grade 11 -12** **.5 credit**

---

Sociology is a one semester – elective class. The purpose of this class is to provide students with a comprehensive examination of the basic concepts, principles, and methods central to the scientific study of sociology. Sociology is concerned with the study of humans in groups. This course focuses upon the aspects of human behavior, the way human groups are organized and how they function and change. It also deals with how human behavior is affected by interaction with other human beings through the process of group living. The course is designed to meet three major goals. The first goal is to teach students to think like sociologists. The second goal is to help students develop a sociological imagination, which will enable them to view their own lives within a larger social and historical context. The third goal is to help students understand and thus appreciate the rich diversity that is possible in social life by exposing them to data from a wide variety of cross-cultural and historical sources.

**Advanced Placement Psychology** **2038** **Grade 11-12** **1 credit**

---

The purpose of the AP course in Psychology is to introduce the systematic and scientific study of the behavior and mental processes of human beings and other animals. Included is a consideration of the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. Students also learn about the ethics and methods psychologists use in their science and practice.

An introductory college course in psychology is generally one semester in length, with some variation among colleges. An AP course in psychology need not follow any specific college curriculum. Rather, the aim is to provide a learning experience equivalent to that obtained in most college introductory psychology courses.

All students electing this intensive course needs to maintain a high grade point average while completing numerous classroom assignments, readings, labs, and projects. Culmination of the course will involve preparation and completion of the Advanced Placement Examination in Psychology held in May.

**Prerequisites:**

- ***Achievement of Proficient or Advanced score on the Literature Keystone Exam***

**Economics Apprentice** **2016** **Grade 9 -12** **.5 credit**

---

This course marries innovative, creative, imaginative ideas with solid economic concepts and principles. Students will engage in all aspects of bringing ideas to completion: from earliest conception, through design and planning, revising and refining, to final completion. At the same time, students will be learning about underlying significant economic concepts such as: supply and demand, opportunity cost, marginal analysis and utility, interest rates, inflation, employment, investment, and free market trade. Experiences will include things like: running a school snack bar; developing real estate; designing and marketing an original product; modifying and marketing an existing product; and engaging, student proposals.

This Advanced Placement Economics course requires strong analytical skills in order to both question and confirm current and former economic policy and thought.

Advanced Placement Economics seeks to provide students with a clear understanding of economic concepts as they relate to the political and social atmosphere of the United States and the emerging world community. Different economic structures such as supply and demand, business organization, labor forces, government policy, and fiscal policy will be topics of discussion.

The Macroeconomics part of the course will focus on the level of economic activity in a global economy. Attention focuses on the demand for output by households (consumption), businesses (investment), government and trade with the rest of the world (net exports), as well as the roles played by fiscal and monetary policies.

The Microeconomic part of the course will study the role of individuals on the economy, (such as firms, households or consumers, etc.) The student will consider such microeconomic data such as individual expenses, a company's production costs, the degree to which the price changes affect the quantity demanded of a product, and how competition affects everyday economic activity.

***Prerequisites:***

- *Recommendation from one previous social studies teacher, or a conference with the AP Economics instructor.*
- *Proficiency on Literature Keystone Examination*



## **TECHNOLOGY PROGRAM**

---

**Introduction to Technology Education      7215      Grades 9      .5 credit**

Students will work through four specific areas of study pertaining to the modern world of technology. This course will give guidelines needed for understanding the effects of society and technology. Students will develop a strong understanding of topics through hands outs and mini-projects. Mini-projects will include: graphic design of note pads and t-shirts, aerodynamic engineering of CO2 dragster, construction and development of Trugg type bridge and research of Bio-Technology topics.

---

**Wood Technology I      7224      Grades 9 -12      .5 credit**

This is an introductory course for students with little or no experience in wood working. Wood I provides students with a variety of activities designed to give students knowledge about wood and wood manufacturing. Students will learn the care, names, proper use of hand power tools, machines, different types of wood, wood finishes, and occupations connected with wood manufacturing. In addition students will learn to design and develop plans, make calculations, make critical thinking decisions, and work safely in an industrial environment.

---

**Wood Technology II      7225      Grades 10 -12      .5 credit**

This is a continuation of the concepts covered in Wood Technology I. Students will build on their knowledge of basic tool use and perform more advanced machine operations. Student projects will be on a larger, more complex scale, and a higher degree of accuracy required.

*Prerequisite: Students are required to have a teacher recommendation to advance to Wood Technology II.*

---

**Wood Technology III      7228      Grades 11 -12      1 credit**

This course is for students with prior experience and superior skills in wood manufacturing. This class provides students with a chance to take their skills to a higher level of design and technique. Students learn to design advance level project, calculations, critical thinking decisions, and work safely in an industrial environment.

*Prerequisite: Students are required to have a teacher recommendation to advance to Wood Technology III.*

---

**Exploring Construction Technology Systems      7235      Grades 11- 12      .5 credit**

This course is intended for students who have interests in pursuing careers in construction. It prepares each to take further courses in technology education and demonstrates application of mathematical and scientific principles in common life situations. The course sets the stage for educational and specific career planning as well as preparation for employment in a technology driven world. Community resources are called upon to realistically define technology applications. Understanding the technological process and the impact of the process on life will be the goals for this course.

---

<b>Computer Aided Design</b>	<b>7226</b>	<b>Grades 10 -12</b>	<b>.5 credit</b>
------------------------------	-------------	----------------------	------------------

---

This course will explore the introductory principals of computer aided design. Students will demonstrate professional level abilities through graphics and three dimensional design. This course will give an overview of skills needed to pursue a career in CAD. Students will learn introductory tools for designing in Google Sketch-Up 2013 and Photoshop CS6 Students will be responsible for keeping an organized folder and sub folder using their student assigned H: drive. Students will be able to present their mini home on wheels design to the class in a grade level appropriate digitally added presentation.

---

<b>Introduction to Digital Photography</b>	<b>7227</b>	<b>Grades 10 - 12</b>	<b>.5 credit</b>
--	-------------	-----------------------	------------------

---

This class will explore Digital Photography in today’s professional world with an emphasis on specific careers in photography and the use of industry level software. This course will give an advanced understanding of the guidelines needed for good photography composition, page layout/design, and the elements of artwork. Students will present and defend their images to the class in a professional tone through a grade level appropriate digital presentation. Students will learn tools for professional retouching and repairing of photos along with manipulating digital photographs using Adobe Photoshop CS6. Each student will use the network’s H: drive or receive a flash drive (USB memory stick) to back up their images in a digital portfolio.

---

<b>Engineering Design</b>	<b>7219</b>	<b>Grades 10 -12</b>	<b>.5 credit</b>
---------------------------	-------------	----------------------	------------------

---

This course will explore the introductory principals of engineering design and 3D modeling and prototyping. Students will define the engineering design process through product re-designs. This course will give an introduction to the guidelines needed for ergonomic and aesthetic design of products. Students will present and defend their re-design to the class in a professional tone through a grade level appropriate digital presentation. Students will learn introductory tools for three dimensional engineering design using Google Sketch-Up. Prototypes will be constructed to scale representing our 3D drawing. Student will use the network’s H: drive or a (USB) flash drive will be assigned to each student and will be used only during class time

---

<b>Architectural Design</b>	<b>7229</b>	<b>Grades 10 -12</b>	<b>.5 credit</b>
-----------------------------	-------------	----------------------	------------------

---

This course will explore the Introductory Principals of Architectural Design and 3D Modeling. Students will define house styles and the fundamentals of home design layout in their own words. This course will give the guidelines needed for good environmental design factors for indoor and outdoor living spaces, including traffic patterns for kitchens, service areas, and sleeping areas. Students will present and defend their home design to the class in a professional tone through a grade level appropriate digital presentation. Students will learn software tools for three dimensional home design using Google Sketch-Up. A presentation model will be made to scale representing the chosen 3D drawings, voted on by the class. Students will have space on the network H: drive or a (USB) flash drive will be assigned to each student and will be used only during class time.

---

<b>Bio-Technology</b>	<b>7240</b>	<b>Grades 9 -12</b>	<b>.5 credit</b>
-----------------------	-------------	---------------------	------------------

---

This course will explore industrial level aquaponics systems. Students will define Aqua culture (fish farming) and hydroponics (growing plants in only water). This course will give an advanced hands-on experience in organic sustainable living. Students will be responsible for multiple growing systems and be able to describe them. Students will have weekly research labs were they are to find new technologies associated with STEM (Science, Technology, Engineering and Mathematics) and Biology related Technologies. Students will present and defend their findings with an emphasis on how it has affected society and where this new technology will go in the future.

This course is a continuation of the concepts covered in Bio-Technology. Students will build on their knowledge of industrial level aquaponics systems. Students will germinate and harvest plants/vegetables while breeding, maintaining and processing tilapia. This course will give an advanced hands-on experience in organic sustainable living. Student projects will be on a larger, more complex scale with a higher degree of accuracy required. Students will be responsible for developing an introductory lesson regarding aquaponics that will be presented and carried out with students from the Kindergarten Academy.

***Prerequisite: Students are required to have a teacher recommendation and have successfully completed Bio-Technology with a grade of 80% or higher to advance to Bio-Technology.***

## **SPECIAL EDUCATION PROGRAM**

---

<b>English Lab 9</b>	<b>6309</b>	<b>Grade 9</b>	<b>1 credit</b>
----------------------	-------------	----------------	-----------------

---

Curriculum in English Lab 9 will mirror the curriculum offered in the Career level English course while offering instruction and study at a slower pace. A major portion of instruction will be on vocabulary, literature, and writing. In the literature program, students will learn about and identify plot, theme, setting, conflict, character development, point of view and symbolism, and diction through several short stories, two novels and one play. Writing assignments will include: literary analysis, the five paragraph composition and compare and contrast writing format. Through reading and writing assignments, students will practice the rules of grammar and correct usage of language. Students will increase their language knowledge through a vocabulary study program.

---

<b>English Lab 10</b>	<b>6303</b>	<b>Grade 10</b>	<b>1 credit</b>
-----------------------	-------------	-----------------	-----------------

---

This course is a thematic survey of literature with an emphasis on writing. Along with preparation for the Keystone Examination, the literature program will continue to expose students to literary works from America and around the world. Students will analyze literary elements in a variety of novels, plays, poems and short stories. Writing assignments will include the informational and argumentative essay as well as a variety of creative writing responses. Through reading and writing assignments students will practice the rules of grammar and correct usage of language. Students will increase their language knowledge through a vocabulary study program. Students enrolled in English Lab 10 will take the Literature Keystone Examination in May.

---

<b>English Lab 11/12</b>	<b>6311</b>	<b>Grade 11 -12</b>	<b>1 credit</b>
--------------------------	-------------	---------------------	-----------------

---

This course is a survey course of American literature and British Literature with an emphasis on writing and preparation for the Keystone Examination which will be re-attempted if student did not achieve proficiency on their initial attempt. The literature program will expose students to literary works from American writers and contemporary non-fiction articles. Students will analyze literary elements in a variety of novels, plays, poems and short stories. Writing assignments will include the informational and argumentative essay as well as a variety of creative writing responses. Through reading and writing assignments students will practice the rules of grammar and correct usage of language. Students will increase their language knowledge through a vocabulary study program.

---

<b>English 9 (SC)</b>	<b>6300</b>	<b>Grade 9</b>	<b>1 credit</b>
-----------------------	-------------	----------------	-----------------

---

A major portion of the year's work will emphasize writing, literature and vocabulary. In literature, students will identify important literary terms in order to properly analyze the content of novels, plays, poems, and short stories. Writing assignments will include literary analysis, compare/contrast essays, and a variety of creative writing responses. Through reading and writing assignments students will practice the rules of grammar and correct usage of language. Students will also complete variety of activities to prepare for the Keystone Exams.

---

<b>English 10 (SC)</b>	<b>6302</b>	<b>Grades 10</b>	<b>1 credit</b>
------------------------	-------------	------------------	-----------------

---

This course is a thematic survey of literature with an emphasis on writing. Along with preparation for Keystone Examination, the literature program will continue to expose students to literary works from America and around the world. Students will analyze plot development and literacy techniques in a variety of novels, plays, poems, and short stories. Through reading and writing assignments students will practice the rules of grammar and correct usage of language. Students will take the Keystone Literature exam.

---

<b>English 11- 12 (SC)</b>	<b>6301</b>	<b>Grade 11 -12</b>	<b>1 credit</b>
----------------------------	-------------	---------------------	-----------------

---

Small group English instruction for students in the 11<sup>th</sup> and 12<sup>th</sup> grade. Weekly vocabulary assignments are given at or near grade level. In addition to this reading assignments and assessments will be consistently attempted throughout the course of the academic year.

---

<b>6009 English Life Skills 9 -10</b>	<b>6009</b>	<b>Grade 9 - 10</b>	<b>1 credit</b>
---------------------------------------	-------------	---------------------	-----------------

---

The purpose of this course is to allow the student to continue strengthening and building English/Language Arts skills in a smaller classroom setting. Alignment to the regular education curriculum can be utilized when appropriate. Flexibility within this setting takes into account student skill levels.

---

<b>6011 English Life Skills 11 -12</b>	<b>6011</b>	<b>Grade 11 -12</b>	<b>1 credit</b>
--	-------------	---------------------	-----------------

---

This class involves reading, writing and discussion. One novel is read each year, depending on student interest. Study guides follow the novel. Additionally, the textbook, *Skills for Independent Living*, is used. This book helps students build new skills based on what they already know. Students will also make connections between the skills taught in this book and the real world. Writing is also incorporated.

### **MATH COURSES**

---

<b>Pre-Algebra w/ Geometry Topics Lab 6409</b>		<b>Grades 9</b>	<b>1 credit</b>
--	--	-----------------	-----------------

---

This course offers a solid foundation in pre-algebra while introducing students to geometric concepts. Students will learn the basis for writing and solving algebraic expressions and equations and how to apply them to real-life scenarios. Students will also learn to measure area and volume of figures, and explore the concept of geometric similarity. Students should be placed into this class based on their academic needs.

---

<b>Algebra Lab</b>	<b>6410</b>	<b>Grades 9 -10</b>	<b>1 credit</b>
--------------------	-------------	---------------------	-----------------

---

This class will follow the regular education Algebra curriculum, but is for students who require a smaller learning environment in order to be successful. Topics covered will include but are not limited to equations, inequalities, coordinate planes and slope. Student will take the Algebra Keystone exam in May.

---

<b>Intermediate Alg. Lab</b>	<b>6413</b>	<b>Grades 10 - 12</b>	<b>1 credit</b>
------------------------------	-------------	-----------------------	-----------------

---

This course builds upon the concepts explored in Algebra 1 and Geometry. The course is organized around families of functions, including linear and quadratic. As the students study these functions, they will learn to represent them as equations, tables, and graphs. They will also study coordinate geometry and model real world problems using functions. In addition to the algebra content, this course features lessons that incorporate data analysis and geometry. *Prerequisite: Successful completion of Pre-Algebra/Topics in Geometry and Algebra 1*

---

<b>Consumer Math Lab</b>	<b>6412</b>	<b>Grade 12</b>	<b>1 credit</b>
--------------------------	-------------	-----------------	-----------------

---

This course teaches key math concepts essential for successful adult living. From buying groceries to budgeting for housing, education, and travel, to filling out job applications and interviewing for the job. Students gain practical math competence through real-world examples in the areas of money management, banking, credit-card math, career choices, consumerism, jobs, coupons and everyday living. Basic skills lessons review and practice mathematical concepts essential to everyday life.

<b>Math 9 (SC)</b>	<b>6400</b>	<b>Grade 9</b>	<b>1 credit</b>
--------------------	-------------	----------------	-----------------

<b>Math SC 10 (SC)</b>	<b>6402</b>	<b>Grade 10</b>	<b>1 credit</b>
------------------------	-------------	-----------------	-----------------

Small group math instruction for students in 9<sup>th</sup> and 10<sup>th</sup> grade. Throughout the academic year a focus on Pre-Algebra (grade 9) and Algebra 1 (grade 10) programs will be the main focus. Students enrolled in Math SC 10 will take the Keystone exam in May.

<b>Math 11 - 12 (SC)</b>	<b>6401</b>	<b>Grades 11-12</b>	<b>1 credit</b>
--------------------------	-------------	---------------------	-----------------

Small group math instruction for students for 11<sup>th</sup> and 12<sup>th</sup> graders. Throughout the academic year a review of Pre-Algebra and Algebra 1 programs will be the main focus. In addition to this basic Geometry will also be examined.

<b>Life Skills Math</b>	<b>6040</b>	<b>Grades 9 -12</b>	<b>1 credit</b>
-------------------------	-------------	---------------------	-----------------

Students will participate in a multisensory approach to mathematics. Everyday math skills will be emphasized. Students work in small groups, phone in orders, complete order forms, make deliveries, collect and count money, record and calculate sales, write checks, make deposits, and complete a check register. Students will also compute problems involving fractions, decimals, percent, measurement and time. They will also have an opportunity to strengthen individual math skills.

### **HISTORY COURSES**

<b>Social Studies 9 -10 (SC)</b>	<b>6200</b>	<b>Grades 9 -10</b>	<b>1 credit</b>
----------------------------------	-------------	---------------------	-----------------

In this survey of world history from prehistoric to modern times, students focus on the key developments and events that have shaped civilization across time. The course is organized chronologically and, within broad eras, regionally. Lessons address developments in religion, philosophy, the arts, science and technology, and political history. The course also introduces geography concepts and skills within the context of the historical narrative. Students analyze primary sources and maps, create timelines, and complete other projects—practicing historical thinking and writing skills as they explore the broad themes and big ideas of human history.

<b>Social Studies 11-12 (SC)</b>	<b>6201</b>	<b>Grades 11 -12</b>	<b>1 credit</b>
----------------------------------	-------------	----------------------	-----------------

Small group history instruction for students in grades 11 and 12. This course will focus on American History and Government combined. Special attention will be devoted to modern American History beginning in the early 1900's to present.

<b>Life Skills History</b>	<b>6210</b>	<b>Grades 9 -12</b>	<b>1 credit</b>
----------------------------	-------------	---------------------	-----------------

The curriculum focuses on American History, map skills, government, technology, and the diversity of people who helped develop the United States. Students will discuss current events, develop an understanding of challenges, successes, geography and technology in the United States, use charts, tables, and map skills to enhance their understanding of historical events, and create timelines to explain historical events.

## **SCIENCE COURSES**

<b>Life Skills Science</b>	<b>6501</b>	<b>Grades 9 -12</b>	<b>1 credit</b>
----------------------------	-------------	---------------------	-----------------

This class includes studying several units throughout the course of the year. A unit on oceanography involves learning about the different animals that inhabit in the ocean. We learn about the different mammals and fish and all of the other elements of ocean life that create the ecosystem. This class also includes learning about weather; studying the different clouds and natural disasters. Another unit that this class studies is land animals. This unit touches upon the different habitats of each animal and their adaptations that enable them to survive in their environment.

<b>Academic Support (ES)</b>	<b>6813</b>	<b>Grades 9 -12</b>	<b>.5 credit</b>
------------------------------	-------------	---------------------	------------------

Small group instruction and academic support for students. This is a class designed to support students in their academic endeavors. Assignment completion and test taking are a few of the benefits of this course.

<b>Life-link</b>	<b>6000</b>	<b>Grades 9 - 10</b>	<b>1 credit</b>
------------------	-------------	----------------------	-----------------

<b>Life-link</b>	<b>6001</b>	<b>Grades 11 -12</b>	<b>1 credit</b>
------------------	-------------	----------------------	-----------------

The purpose of this elective is for students who want to learn skills to help them become more independent. The students travel to a local nursing home where they participate in an intergenerational program. This helps develop social skills and confidence. Students must be willing to communicate with others. Additionally, the Bucs to Elders program assists senior citizens in the Interboro Community with raking, light house work, yard work, etc. Throughout the year, classwork assignments relate to learning how to communicate effectively, express and deal with feelings, working with others and job skills. Resumes and portfolios are also developed.

## Vocational Program

The following includes a representation of the possible Vo-Tech offerings. A complete listing can be obtained through the Guidance Office. The actual courses offered may vary depending on student requests and staffing needs at the Vocational schools.

Interboro School District participates in a program, which offers additional vocational and technical courses at one Delaware County Area Vocational-Technical School for students in grades 10, 11 and 12. Each course is an extension of the high school program and students may earn 3 credits for each year in attendance towards the graduation requirements. Courses are scheduled on a half-day basis.

### **Medical Careers Program**

**requires a pre-requisite and approval of School Counselor**

This course is recommended for the college-bound senior who is interested in pursuing a career in the healthcare profession. In this program, the hospital becomes the classroom. Through a partnership with Crozer Keystone Health System, students will rotate through various departments of the hospital. Students will observe many career opportunities and will work alongside medical professionals as they care for patients.

#### **CORE CURRICULUM**

Anatomy, physiology pathophysiology, medical terminology and abbreviations, safety, infection control, communication techniques, legal/ethical issues and responsibilities. Students will also learn basic patient care skills including: assessment of vital signs, first aid, assisting with activities of daily living, and sterile techniques. CPR training will also be offered. The challenging academic curriculum, patient care skills practicum and clinical rotation will help the students with future career choices in healthcare and prepare them for the next step in their education.



**Exercise Therapy & Sports Science**  
**requires a pre-requisite and approval of School Counselor**

This course is recommended for the college-bound senior who is interested in pursuing a career in the healthcare profession. Beginning Sept, 2016, Delaware County Technical High School is offering a **NEW PROGRAM** called “**Exercise Therapy & Sports Science**” for high school students interested in pursuing careers in Sports Medicine, Athletic Training, Physical Therapy, Occupational Therapy, Exercise Physiology, Fitness Training, and Nutrition. The salary range for these careers range from \$27,000-\$205,000 depending on the level of post- secondary education and career choice. Students who complete this DCTS program could potentially earn certifications in the following areas: Personal Training, First Aide, CPR, and AED. The projected job growth for occupations related to this program is **up to 33% higher** than the average growth rate for all careers!

**CORE CURRICULUM**

Legal and Ethical Issues, Communication, Infection Control, Disaster Preparedness, Emergency Care and First Aide, Human Needs and Development, Moving, Lifting, Positioning and Body Mechanics, Nutrition and Hydration, Basic Clinical Skills, Mental Health and Wellness, Rehabilitation and Restorative Care, Medical Terminology, Administrative Skills, Anatomy, Physiology and Pathophysiology, Mathematics in Rehabilitative Care, Concussion Management

**Apple Systems & Design**  
**requires a pre-requisite and approval of School Counselor**

This program prepares students to apply basic engineering principals and technical skills in support of professionals who use computer systems. This comprehensive high school program specializes in Apple computer systems and applications. Students studying information technology will learn about LANs, WANs, network segments, internet and intranet systems. Students will learn to perform network modeling, analysis and planning, installation and maintenance of hardware and software, monitor networks, and make recommendations for future system upgrades. Students can also learn to use audio, video, and image editing software that is considered the industry standards by today’s professionals. Students have the opportunity to earn a number of Apple creative application and information technology certifications.

CONSTRUCTION TECHNOLOGY	HOSPITALITY, TOURISM & HUMAN SERVICES	LOGISTICS, DISTRIBUTION & TRANSPORTATION
<p><b>BUILDING TRADES</b> Prepares students for employment in general construction or property maintenance. Taught carpentry, masonry, plumbing, and roofing, drywall application, painting and framing/finishing.</p> <p><b>CARPENTRY</b> Students learn building layout, framing, roofing, windows, doors, and trim. On-site projects include using hand and power tools.</p> <p><b>ELECTRICAL CONSTRUCTION TECHNOLOGY</b> Introduces students to the basic concepts of residential and commercial wiring. Students install circuits, switches, conductors, circuit-breakers, and other electrical devices. Topics include selecting and ordering materials, supplies, tools, codes, blue print reading and low voltage wiring.</p> <p><b>HEATING, VENTILATION &amp; AIR CONDITIONING (HVAC)</b> Install and maintain complex climate control systems for residential and commercial buildings. Learn how to make homes and buildings more energy efficient.</p>	<p><b>EARLY CHILDHOOD EDUCATION</b> Pennsylvania’s growing need for preschool and kindergarten teachers makes ECE a rewarding educational choice.</p> <p><b>CULINARY ARTS &amp; HOSPITALITY</b> Prepare students for success in the food service and hospitality industry. Students are taught food prep, dining service, inventory control, safety and sanitation.</p> <p><b>CULINARY ARTS &amp; FOOD SERVICE MANAGEMENT</b> Prepare for Culinary Arts and Management Careers in the food industry. Students are taught food prep, front of the house management, inventory control, safety, sanitation, and business management skills.</p> <p><b>COSMETOLOGY</b> This three-year program prepares students for the PA State Board or Cosmetology license. Enables students to confidently begin working with hair, skin and nails early in the training.</p>	<p><b>AUTOMOTIVE TECHNOLOGY</b> Gain a competitive edge working with state-of-the-art equipment and professionals in the automotive industry.</p> <p><b>COLLISION REPAIR TECHNOLOGY</b> Use state-of-the-art equipment for welding, metal repair, detailing and more.</p> <p><b>LOGISTICS &amp; INVENTORY MANAGEMENT</b> Introduces students to the distribution service industry. Prepares students to work in distribution centers, warehouses, and supply rooms.</p>
<p><b>HEALTH &amp; BIOSCIENCE</b></p> <p><b>DENTAL TECHNOLOGY</b> Earn your Dental Assistant certification and become a vital member of the dental health team.</p> <p><b>EMERGENCY AND PROTECTIVE SERVICES</b> Experience this comprehensive public safety education program in the state’s only certified high school EMT program.</p> <p><b>MEDICAL CAREERS</b> (see attached description)</p> <p><b>HEALTH SCIENCES</b> This is a healthcare career pathways program culminating with the opportunity to choose a Medical Assisting or Nursing Assisting pathway.</p>		<p><b>ENGINEERING &amp; COMPUTER SCIENCE</b></p> <p><b>ADVERTISING, DESIGN &amp; COMMERCIAL ART</b> Graphic designers or graphic artists plan, analyze, and create visual solutions to communications problems.</p> <p><b>APPLE SYSTEMS &amp; DESIGN</b> (see description above)</p> <p><b>COMPUTER NETWORKING AND DIGITAL FORENSICS</b> Curriculum centers on networks and the computer devices that comprise a typical network. Students will learn to build, maintain and support computer network systems which form the foundation for beginning a career in Information Technology.</p> <p><b>ENGINEERING TECHNOLOGIES</b> This program prepares students for high-demand, life-sustaining, STEM careers in the engineering, welding, fabrication and advanced manufacturing fields.</p>

## **Career Field Experience**

Career Field Experience is an opportunity for students to become actively involved in experiences beyond the IHS campus. These experiences are supplements to, not substitutes for, the regular curriculum. Regulations regarding career field experiences are intended to ensure (1) only those students with the ability and desire to link academic and practical experiences are eligible, and (2) that career field experience meets rigorous standards on both the practical and academic level.

## DCCC Dual Enrollment Program

\*see School Counselor for application

Interboro School District's partnership with the Delaware County Community College to provide Dual Enrollment offers eligible junior and senior students the opportunity to earn college credits while they are still in high school at a fraction of the standard tuition rates.

### **Student Requirements:**

- Juniors – To participate in a dual enrollment course, 11<sup>th</sup> grade students must have a minimum of 13 credits at the start of their junior year and carry a minimum of 6 credits in their High School schedule.
- Seniors – To participate in a dual enrollment course, 12<sup>th</sup> grade students must have a minimum of 19 credits at the start of their senior year and carry a minimum of 5 credits in their High School schedule.

### **Number of Courses per Semester:**

- Junior students at the Interboro High School can take one Dual Enrollment class in the fall semester and one in the spring semester.
- Senior students at the Interboro High School can take two Dual Enrollment classes in the fall semester and two in the spring semester.

**Course Availability:** If a course of interest is offered at the Interboro High School, then a student cannot take its equivalent at Delaware County Community College. **Students are required to obtain counselor and administrator approval via completion of the “Interboro High School Dual Enrollment Course Contract” form before enrolling in a Dual Enrollment course.** If all options are exhausted to fit a course offered at the Interboro High School into a student's schedule, the High School administration will consider a student's request to enroll in an equivalent course at DCCC.

**Dual Enrollment Courses and the Interboro High School Transcript:** The course(s) in which the student is enrolled at DCCC and their final grade(s) earned through Dual Enrollment coursework will appear on the official Interboro High School transcript as part of the student's Academic History.

**Dual Enrollment Courses and Interboro High School Credits/GPA:** The student's final grade in a Dual Enrollment course **will not count toward the fulfillment of Interboro's graduation requirements.** The student will still be required to achieve a minimum of 23 credits in specified core content and elective classes taken at the Interboro High School. Moreover, grades achieved through Dual Enrollment coursework **will not count toward the student's class rank or grade point average** (weighted/ unweighted) at the Interboro High School.

**Cost:** As part of Interboro's partnership with DCCC, students will save significantly on tuition costs, paying just **\$50 per credit.** Typically, most Dual Enrollment courses are three credits (\$150). This is almost a 70 percent discount on the College's standard tuition rate.

- Upon acceptance into the Dual Enrollment program and course registration, students will be required to pay Delaware County Community College via DCCC's delaGATE system. If a student qualifies for free/reduced lunch, he or she can request pre-payment by the Interboro School District via the High School Dual Enrollment Counselor.
- **Students who receive a final grade of C or better in their Dual Enrollment coursework can be reimbursed by the Interboro School District. To obtain reimbursement, students should submit a completed Interboro School District Dual Enrollment Reimbursement Form, final transcript, and receipt of payment to the Dual Enrollment Counselor.**

**Textbooks:** The cost of \$50 per credit does not include textbooks. The Interboro School District will not reimburse students for the cost of textbooks purchased for Dual Enrollment coursework.

**Dual Enrollment during Summer Session:** Interboro School District students who are entering their senior year can apply to take summer courses through Dual Enrollment. The record of course completion will appear on the student's official transcript; however **the Interboro School District will not provide reimbursement for student tuition for courses that are taken during the summer session.**

**Transportation:** The Interboro School District does not assume responsibility for student transportation to or from Dual Enrollment courses taken at the Delaware County Community College or its satellite locations.

### **Dual Enrollment Application and Registration Process**

- **Step 1. Complete Dual Enrollment Application**

Submit completed application to the Dual Enrollment Counselor. If the student has taken the SAT or ACT, a copy of the score report should be included with the application.

- *The deadline to apply for the summer or fall semester is April 1<sup>st</sup>.*
- *The deadline to apply for the spring semester is October 1<sup>st</sup>.*

- **Step 2. Await directions regarding next steps from Dual Enrollment Committee**

Applications are reviewed by the DCCC Dual Enrollment Office. Applicants are notified via mail regarding the next steps. Applicants who are not admitted into the Dual Enrollment program are encouraged to keep working hard in high school and to reapply for a future term.

- **Step 3. Take your placement test**

The student's placement test will be scheduled to occur on site at the Interboro High School. Information regarding placement testing will be distributed by the Dual Enrollment Counselor.

*Waiving the placement test: SAT or ACT scores may be used for placement in math and/or English courses. To waive the placement test, students must receive the following minimum scores:*

- Reading = SAT Reading: 500; ACT Reading: 18
- Math = SAT Math: 500; ACT Math: 20

- **Step 4. Attend Dual Enrollment College Planning Session:** After placement testing or submission of applicable SAT/ACT scores the will receive information from the Dual Enrollment Counselor regarding their scheduled Dual Enrollment College Planning session. The Dual Enrollment College Planning session is a customized advising presentation on the services and resources available for students. After the presentation, students will have an opportunity to meet with an adviser to register for courses. **Students must bring their completed "Interboro High School Dual Enrollment Course Contract" form indicating counselor and administrator approval to register for courses of interest.**

- **Step 5. Access delaGATE**

During the College Planning session, the student will learn how to access [delaGATE](#), the College's online portal. From delaGATE, the student can access their bill for the term, information on student services and new student orientation, and their college email account.

- **Step 6. Pay your bill**

Payment in full is expected by the due date established by DCCC. The College accepts cash, check, money order, Visa, MasterCard, American Express, or Discover. Payment by credit card and electronic check is accepted online via delaGATE. Failure to establish payment by the due date will result in the cancellation of the course. DCCC cannot guarantee that, if canceled for non-payment, the student can be reinstated into the same course. High school students are not eligible for financial aid. They are also not eligible for the College's payment plan due to the significantly reduced tuition. ***Students who receive a final grade of C or better in their Dual Enrollment coursework can be reimbursed by the Interboro School District. To obtain reimbursement, students should submit a completed Interboro School District Dual Enrollment Reimbursement Form, final transcript, and receipt of payment to the Dual Enrollment Counselor.***