contents

REQUIREMENTS
2016 CURRICULUM OVERVIEW
UNDERSTANDING COURSE CODING
ART
CLASSICS
COMPUTER SCIENCE & TECHNOLOGY
ENGLISH
HISTORY
LANGUAGES
MATHEMATICS
MUSIC
PHYSICAL EDUCATION & HEALTH
RELIGIOUS STUDIES
SCIENCE
Delbarton offers a wide range of courses designed to give the student a comprehensive and in-depth background in the liberal arts in preparation for his college years. Most courses are required; some electives are offered in the eleventh and twelfth grades.

The requirements for graduation from the Upper School are

- Four years of English, Mathematics, and Physical Education/Health
- Three years of History, including Ancient, European, and American
- Three years of Science, comprised of Biology, Chemistry, and Physics
- Three years of a single foreign language
- Five terms of fine arts and music (three at an advanced level)
- Two terms of Religious Studies each year for four years
- Two terms of Computer Science;
- One term of Language Arts
- One term of Leadership

Students are required to take five full-year (three-term) courses each year. In junior and senior year, the student may choose electives to complete the five-course-per-year requirement necessary for graduation. Graduation depends upon successful completion of all the above requirements.

Middle School Requirements

Middle School students are required to complete successfully

- Two years of English, Mathematics Language, Science, Humanities, and Physical Education/Health
- One term each of Computer Science, Music and Art
- Two terms each year of Religious Studies

Advancement into the Upper School depends upon the successful completion of all these requirements.

This Program of Studies is for informational purposes only. By listing a course, Delbarton School does not guarantee that the course will be offered each year. No agent of the school is authorized to guarantee admission to a particular course, guarantee that a student will have a particular teacher or guarantee that a student will take a course in a particular term.

Delbarton School reserves the right to cancel any course or change faculty. It also reserves the right to change policies stated in this Program Studies.
## DELBARTON SCHOOL CURRICULUM 2016-17

<table>
<thead>
<tr>
<th>Grade 7</th>
<th>Grade 8</th>
<th>Grade 9</th>
<th>Grade 10</th>
<th>Grade 11</th>
<th>Grade 12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English</strong></td>
<td><strong>English</strong></td>
<td><strong>English</strong></td>
<td><strong>English</strong></td>
<td><strong>English</strong></td>
<td><strong>English</strong></td>
</tr>
<tr>
<td>English 7</td>
<td>English 8</td>
<td>English 9</td>
<td>English 10</td>
<td>English 11</td>
<td>English 12</td>
</tr>
<tr>
<td><strong>Math</strong></td>
<td><strong>Math</strong></td>
<td><strong>Math</strong></td>
<td><strong>Math</strong></td>
<td><strong>Math</strong></td>
<td><strong>Math</strong></td>
</tr>
<tr>
<td>Algebra 1a</td>
<td>Algebra 1b</td>
<td>Geometry</td>
<td>Algebra II &amp; Trigonometry</td>
<td>Algebra II &amp; Trigonometry</td>
<td>Algebra II &amp; Trigonometry</td>
</tr>
<tr>
<td>Geometry</td>
<td>Pre-Calculus</td>
<td>AP Calculus AB</td>
<td>Pre-Calculus</td>
<td>AP Calculus BC/Multi-Variable</td>
<td>Pre-Calculus</td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td><strong>Science</strong></td>
<td><strong>Science</strong></td>
<td><strong>Science</strong></td>
<td><strong>Science</strong></td>
<td><strong>Science</strong></td>
</tr>
<tr>
<td>Integrated Science</td>
<td>Integrated Science</td>
<td>Biology</td>
<td>Advanced Biology</td>
<td>Advanced Chemistry</td>
<td>Advanced Chemistry</td>
</tr>
<tr>
<td><strong>History</strong></td>
<td><strong>History</strong></td>
<td><strong>History</strong></td>
<td><strong>History</strong></td>
<td><strong>History</strong></td>
<td><strong>History</strong></td>
</tr>
<tr>
<td>World Cultures</td>
<td>US History</td>
<td>World History I</td>
<td>European History</td>
<td>US History</td>
<td>AP US History</td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td><strong>Language</strong></td>
<td><strong>Language</strong></td>
<td><strong>Language</strong></td>
<td><strong>Language</strong></td>
<td><strong>Language</strong></td>
</tr>
<tr>
<td>Spanish 1a</td>
<td>Spanish 1b</td>
<td>Spanish I, II</td>
<td>Spanish II, III</td>
<td>Spanish III, IV, AP</td>
<td>Spanish IV, V, AP</td>
</tr>
<tr>
<td>French 1a</td>
<td>French 1b</td>
<td>French I, II</td>
<td>French II, III</td>
<td>French III, IV, AP</td>
<td>French IV, V, AP</td>
</tr>
<tr>
<td>Latin 1a</td>
<td>Latin 1b</td>
<td>Latin I, II</td>
<td>Latin II, III</td>
<td>Latin III, IV, AP</td>
<td>Latin IV, V, AP</td>
</tr>
<tr>
<td>Italian 1a</td>
<td>Italian 1b</td>
<td>Italian I, II</td>
<td>Italian II, III</td>
<td>Italian III, IV, AP</td>
<td>Italian IV, V, AP</td>
</tr>
<tr>
<td>German 1a</td>
<td>German 1b</td>
<td>German I, II</td>
<td>German II, III</td>
<td>German III, IV, AP</td>
<td>German IV, V, AP</td>
</tr>
<tr>
<td><strong>Arts</strong></td>
<td><strong>Arts</strong></td>
<td><strong>Arts</strong></td>
<td><strong>Arts</strong></td>
<td><strong>Arts</strong></td>
<td><strong>Arts</strong></td>
</tr>
<tr>
<td>Music (1 term)</td>
<td>Art (1 term)</td>
<td>Visual Arts (1 term)</td>
<td>Intro Music Theory (1 term)</td>
<td>Studio Art</td>
<td>Studio Art</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td><strong>Religion</strong></td>
<td><strong>Religion</strong></td>
<td><strong>Religion</strong></td>
<td><strong>Religion</strong></td>
<td><strong>Religion</strong></td>
</tr>
<tr>
<td>The Bible (2 terms)</td>
<td>Religious Heroes (2 terms)</td>
<td>2 terms (4 offerings)</td>
<td>2 terms (4 offerings)</td>
<td>2 terms (4 offerings)</td>
<td>2 terms (4 offerings)</td>
</tr>
<tr>
<td>Benedectines (1 term)</td>
<td>Religion &amp; Literature</td>
<td>Prophets</td>
<td>Social Justice</td>
<td>Christian Lifestyles</td>
<td>Christian Lifestyles</td>
</tr>
<tr>
<td>Gospels (1 term)</td>
<td>Genocide Studies</td>
<td>Sacraments</td>
<td>Social Justice</td>
<td>Quest for God</td>
<td>Ethics Seminar</td>
</tr>
<tr>
<td>Pauline Epistles</td>
<td>Family Life</td>
<td>World Religions</td>
<td>World Religions</td>
<td>Pentateuch</td>
<td></td>
</tr>
<tr>
<td><strong>Computer Science (1 term)</strong></td>
<td><strong>Computer Science (1 term)</strong></td>
<td><strong>Computer Science (1 term)</strong></td>
<td><strong>Computer Science (1 term)</strong></td>
<td><strong>Computer Science (1 term)</strong></td>
<td></td>
</tr>
<tr>
<td>Digital Skills</td>
<td>Introduction to Programming</td>
<td>Adobe Photoshop</td>
<td>AP Computer Science A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAD and 3D Printing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Physical Education &amp; Health</strong></td>
<td><strong>Physical Education &amp; Health</strong></td>
<td><strong>Physical Education &amp; Health</strong></td>
<td><strong>Physical Education &amp; Health</strong></td>
<td><strong>Physical Education &amp; Health</strong></td>
<td><strong>Physical Education &amp; Health</strong></td>
</tr>
<tr>
<td>2 terms: 1 &amp; 1</td>
<td>3 terms: 2 &amp; 1</td>
<td>2 terms: 1 &amp; 1</td>
<td>2 terms: 1 &amp; 1</td>
<td>3 terms: 2 &amp; 1</td>
<td></td>
</tr>
<tr>
<td><strong>Language Arts</strong></td>
<td><strong>Drivers Ed</strong></td>
<td><strong>Leadership</strong></td>
<td><strong>Freshman Project</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1 term)</td>
<td>(1 term)</td>
<td>(1 term)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Understanding Course Coding

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GB200</td>
<td>Course Designation and Level number</td>
</tr>
</tbody>
</table>

**Advanced**

- **Gee Bee**: Formal name of the course. On most reports a short version of the name is used for simplicity's sake.
- **6cr**: Number of credits of the course. Divide by 2 to get the number of terms the course runs.
- **{09,10}**: Grade level that may take this course.

**Code Course Typing Designations**

- **AP**: Advanced Placement Course-grade bonus of 1 quality point in calculations.
- **EL**: Elective Course.
- **FA**: This course counts towards fulfilling Fine Arts requirement.
- **LA**: This course counts towards fulfilling Language requirement.
- **RQ**: Required course.
- **DptRec**: Department Recommendation needed to take this course.
- **[GB100]**: Course in the brackets is a prerequisite to this course.
- **H**: This course fulfills the History requirement in the Religious Studies Department.
- **M**: This course fulfills the Morality requirement in the Religious Studies Department.
- **S**: This course fulfills the Scripture requirement in the Religious Studies Department.
ART
Art Department courses are designed to develop the following: the ability to think originally and inventively within the creative possibilities of the artist's media; competency in the basic techniques of the visual arts; increased sensitivity and awareness in observation; comprehension of the society and culture which the artist inherits; discernment in the judgment of aesthetic values.

AR050 Art 08 2cr {08} RQ
This is a one-term introduction to a variety of art experiences which develops visual awareness and respect for the creative process. Color and line are emphasized through drawing and painting exercises. Art vocabulary is introduced to enhance verbalization of aesthetic experiences.

AR201 Introduction to the Visual Arts 2cr {10} FA RQ
This one-term course is an introduction to the basic elements of art through projects involving studies in positive and negative relationships: value, color, space, form, and line. Basic skills in manipulating tools and materials are stressed with an emphasis on observation to develop aesthetic awareness. Upon completion of this course, students with exceptional abilities, interest, and motivation in the arts may qualify for the AP Studio Art Program. Presentation of their art portfolio and recommendation by art department faculty are required.

AR401 Studio Art 6cr {11, 12} EL FA [AR201]
This three-term course engages the student in a variety of studio programs. Basic principles involving drawing, design, perspective are subsequently reinforced through painting, printmaking and digital photography. Three-dimensional work is explored through ceramics which is presented via the traditional hand-building and wheel methods. Studio experience is supplemented by sketchbook assignments and museum field trips. (Juniors who qualify as candidates for the AP Studio Art Program must take this course as a pre-requisite. Upon completion of this course, juniors must re-submit their portfolio to the art department faculty for review and evaluation of student performance in order to continue in the AP Art Program.)

AR402 Film Production 6cr {12} EL FA
Students will be examining classic works of American cinema including those by Ford, Coppola, Scorsese and Wilder. International directors such as Kurosawa, Fellini, Meirelles and many others will round out our canon of film history. The students will also learn the intricacies of screenwriting, completing their own short scripts in the winter term. Throughout, the emphasis will be on answering the age old question of “how do you make a movie?” The class will be immersed in all aspects of production and post-production, completing a thesis film as a group by the end of the year.
AR403 Form and Sculpture 6cr {12} EL FA [AR201]
This year long course is open to all seniors and fulfills their fine arts requirement. The course is designed to review the elements and principles of art the student has learned in previous art classes and apply these principles to the field of three dimensional design. Theory and aesthetics of art lead the student into actual production of work. Some sculptural media could include clay, wire, wood, plaster, plastic, recycled materials, and found objects.

AR602 Advanced Placement Studio Art 6cr {12} AP EL FA [AR401, DptRec]
For approved AP Portfolio candidates, mastery of the art fundamentals is stressed upon entering the program. This course allows the student to explore and express areas of individual interest while enhancing technical skill. In September, the student must choose one of three areas of classification – Drawing Portfolio, Two Dimensional Design Portfolio, or Three-Dimensional Design Portfolio. Concepts and techniques of a more complicated nature are studied with further emphasis on portfolio preparation including original and digital formats. Candidates are expected to present their art work to the School in the annual AP Student Art Exhibition. At the conclusion of the course, students will submit their completed portfolio according to the guidelines as directed by the College Board.

AR606 Advanced Placement Art History 6cr (11,12) AP EL FA (DptRec)
The AP Art History course is an historical survey of Western art from Altamira to Albers with an emphasis on painting, sculpture and architecture. Students will develop the skills of visual and contextual analysis, by examining works of art from diverse cultures and understanding global artistic traditions. By doing so, students will expand their knowledge of history, geography, politics, religion, languages, and literature, as they explore the story of people as told through the art they created. The first term covers Paleolithic through Greco-Roman, the second, early Christian through the Renaissance, the third, Baroque through the 20th century to present day. Heavily supported by digital images and video, the emphasis of the course is on the visual analysis of specific works of art. Class and individual trips to NYC museums as well as guest lecturers supplement the course. At the conclusion of the course, students will take the AP Art History exam administered by the College Board.
CLASSICS

The Classics Department at Delbarton School seeks to enrich students’ preparatory education by developing their ability to read and appreciate Latin literature and by examining aspects of Roman culture from which this literature originated.

LT001 Middle School Latin Ia 6cr {07}

This introductory course focuses on cultivating strong Latin reading skills, and an understanding of the basics of Latin grammar. The textbook Ecce Romani 1 enables students to begin reading in Latin from the onset of the course, and offers a continuous narrative that follows an upper class Roman family. This engaging text lets students learn about Roman culture, while becoming familiar with common Latin vocabulary and grammatical constructions.

This course emphasizes a recognition of common patterns in the Latin language, and draws comparisons between Latin and English vocabulary and grammar. Through these comparisons, students not only become familiar with Latin, but also enhance their understanding of English grammar and vocabulary. Students engage with the language orally, aurally, and visually and are encouraged to speak, listen, read, and write in Latin, which offers a more complete and exciting engagement with the language.

Students will learn the five noun cases, the basic uses of each case, the first three declensions, the four conjugations, and the use of infinitives and imperatives.

LT050 Middle School Latin Ib 6cr {08}

This course finishes the material of Ecce Romani 1, while allowing several weeks to incorporate other readings and solidify the skills needed to succeed in Latin II. The activities maintain an emphasis on strong reading skills and an understanding of Latin grammar, but also encouraging the development of reading intuition and other advanced language tactics. Students begin to encounter more challenging grammatical concepts that are explored through translations and composition activities. This course also reinforces the fundamentals that were covered in Latin 1a, and continues to explore the relationship between English and Latin grammar and vocabulary, as well as the culture of ancient Rome.

Students will learn neuter nouns, the remaining declensions, the remaining active indicative tenses, additional uses of the infinitive, demonstratives, relatives, and irregular verbs.

LT101 Latin I 6cr {09, 10} LA

Like Latin 1a and 1b, this introductory course focuses on cultivating strong Latin reading skills, and an understanding of the basics of Latin grammar. Using the textbook Latin for the New Millennium 1, students read stories about the history, mythology, and culture of Greece and Rome, while exploring the relationship between Latin and English grammar and vocabulary. Through grammar activities, translation, and composition, students develop an understanding of the fundamentals of the Latin language, while beginning to develop a sense of reading intuition, Latin word order, and idioms. The course works to create a
solid foundation in the basics, upon which students can build as the concepts become more complex toward the end of the year and in following years. In addition, the text offers readings that are adapted from real Latin literature, which cultivates an interest in the ancient world and exposes students to more authentic readings at an early stage in their learning, to prepare them for more challenging texts.

Students will learn all five cases and their main uses, the first three declensions, all the active indicative tenses, imperatives, uses of the infinitives, relatives, and irregular verbs

**LT201 Latin II 6cr {09, 10, 11} LA [LT050 or LT101]**
This course is designed for students who began Latin in 9th grade, and those who completed two years of middle school Latin. It assumes a solid foundation in the fundamental of Latin grammar and builds off of that foundation by introducing students to advanced grammatical concepts and more challenging readings, including edited Latin literature. With the text Latin For Americans 2, students will be introduced to advanced grammatical constructions and increasingly challenging translations to prepared them to read unedited Roman literature in the following year. Focusing of strengthening each student’s grammatical foundation and developing strong and literal translation skills, this course will contain translation, composition, and grammar activities, will incorporating discussions and readings on Roman culture, history, and literature.

Students will learn the subjunctive of all conjugations, and advanced concepts including indirect statement, purpose clauses, result clauses, indirect command, and other uses of the subjunctive.

**LT301 Latin III 6cr {10, 11, 12} LA [LT201]**
This course reviews the most challenging concepts introduced in Latin II, as students begin to read unedited Roman literature. Generally, three authors are read; previous years have included the works of Ovid, Pliny the Younger, Horace, Cicero, Catullus, and Petronius, among others. Through slow, focused translation and grammatical exercises, students learn to translate advanced Latin texts carefully and literally and to demonstrate their knowledge of the grammar through their translation. In addition, this course begins to cultivate a more nuanced understanding of Latin literature through the study of rhetorical devices, cultural context, word order, and language choice. Though a grammatical understanding of the texts is the primary focus, students are also asked to demonstrate their understanding of the stories and themes of these works and comment upon the way in which the authors express their ideas. This course is designed to provide excellent preparation for the rigor and depth of the AP curriculum.
LT401 Latin IV 6cr {11, 12} LA [LT301]
This course offers students the opportunity to continue Latin after Latin III without taking the Advanced Placement course. Students read selections from Caesar’s De Bello Gallico and Virgil’s Aeneid, and focus on producing careful and literal translations that read smoothly in English. In addition, the course builds off the study of literary devices that was introduced in Latin III and emphasizes literary analysis, through essays and in class discussions.

LT405 Latin V 6cr (12) LA [LT401 or LT602]
Latin V offers a fifth year of study to students who have completed Latin IV or AP Latin. This course focuses on developing a student’s ability to discuss and analyze Latin texts, in the manner of an upper level college language course, while reinforcing the translation and grammar skills that were cultivated throughout previous Latin courses. Topics and authors featured in this course vary from year to year, depending on the interests of the students enrolled. Previous years have included such authors as Cicero, Ovid, and others.

LT603 Advanced Placement Latin 6cr {11, 12} AP LA [LT301, DptRec]
This course is designed to prepare students for the Advanced Placement exam on Caesar’s De Bello Gallico and Virgil’s Aeneid. Emphasis is placed on literal, but smooth translations and literary analysis, while oral readings, attention to meter, and the use of literary devices are also covered. Students are asked to discuss and analyze various features of the texts, including themes, word choice, and meter, both in class and in essays and tests are comprised of translation, grammar questions, and short essays.

GR103 Ancient Greek I & II 6cr {11, 12} [DptRec]
This course is offered to those students wishing to complement three years of modern language with one year of an ancient language. It also provides a student who plans a classics major at college the opportunity to be better prepared for such a major. The course is taught at a more intensive pace than other first year language courses. It is expected that all Ancient Greek grammar and syntax will be covered. In addition a few selections from Homer’s Iliad will be read.
COMPUTER SCIENCE & TECHNOLOGY

The Computer Science Department offers a wide range of classes in various applications, technologies, and programming. We stress independent thinking and problem solving as we teach students how to use online resources and tutorials. These are important skills that will serve them well in the future.

All students are required to take a one-trimester course in Computer Science in 7th, 9th, and 11th grades. Seventh graders must take CS001 Digital Skills. All 9th graders can take either CS140 – Introduction to Programming or CS141 – CAD and 3D Printing. Juniors can take CS141 or any of the 300-level courses listed below. Seniors have the option of taking a full-year elective in AP Computer Science in JAVA.

CS001 Digital Skills 2cr {07} RQ
This course is designed to ensure that students have the digital skills to be successful in high school and beyond. This course requires students to complete projects in which they demonstrate important skills using the software of their choice, within limits. Students will work with word processing, spreadsheet, presentation, and database software. They will learn not only the required skills, but also those needed to master new software quickly and efficiently, which, in the Digital Age is important. Additionally, a unit on Digital Citizenship is covered to empower students to think critically, behave safely, and participate responsibly in our digital world.

CS140 Introduction to Programming 2cr {09} EL
This course is designed for students with no programming experience and exposes them to the basics of computer programming. Short videos, example code, and exercises make coding fun and accessible for beginners. Students move through content at their own pace based on their understanding and mastery of course concepts. The building blocks of programming are taught by focusing on problem solving, not syntax. The skills learned here can be applied to any programming language. This course, OR Intro to Java, is a pre-requisite for AP Computer Science - CS604.

CS141 CAD and 3D Printing 2cr {09, 11} EL
This course introduces students to CAD (Computer Aided Design) using Sketchup and 3D Printing using our Makerbot Replicator 2 and Ultimaker 2 3D printers. Students will not only learn how to design objects in Sketchup, but also how to design specifically for 3D printing. In one popular project students design model rockets that are actually launched. Extra points are awarded for the highest flying rocket (calculated using triangulation) as well as for the best looking (judged by school-wide online vote).
CS340 Web Development 2cr {11} EL
This is a hands-on, project-based course in which students will learn how to build websites from scratch using HTML, CSS (Cascading Style Sheets) and Javascript. They will develop and improve a website (topic of their choosing) writing all the code by hand throughout the term with the techniques learned. Topics covered will include, design, layout, navigation and basic Photoshop so they can add images to their websites. There will also be a unit on WordPress which has become a popular alternative to develop customized websites for amateur and professional developers.

CS342 Photoshop cs6 {11} EL
This course introduces the students to graphic design and photo manipulation using Adobe Photoshop CS6. The course is project-based and the students will work on a variety of interesting projects. From creating CD covers and movie posters to putting someone’s face on another person’s body. Some of the topics covered include filters, selecting, text, blending options, photo enhancement and layers.

CS343 Digital Photography {11} EL
This hands-on course will introduce students to digital photography in both color and black & white. Some of the topics covered will be composition, shutter speed, aperture settings, depth-of-field, lighting and resolution. Students will learn how to use Photoshop CS6 to edit, touch-up, enhance and manipulate their pictures. Each unit will start with the class viewing samples from expert photographers. The students will learn the techniques for this type of photography and then have to create a portfolio of this type of work.

CS344 Introduction to Java Programming {11} EL
Students are required to design and solve problems with a computer by using a sophisticated object-oriented programming language, Java. Topics covered include an overview of computers and programming languages, the basic elements of a programming language, an introduction to objects, processing input and output, selection control structures, and repetition control structures. This course, OR Intro to Programming, is a pre-requisite for AP Computer Science- CS604.
CS345 Coding and Design through Robotics 2cr {11} EL
This one term course introduces the fundamental concepts of robotics and programming. Students will design robots to accomplish specific tasks and then test and modify their designs. The class will start with simple drive-trains and move into more complicated robots, such as using sensors to interact with the environment. They will also use programming to operate the robots. The class will be taught through short lectures, hands-on team projects and competitions.

CS400 Delbarton Incubator 6cr {12} EL FA [DptRec]
In this hands-on, self-directed class, students will demonstrate creativity and problem solving skills. In a team format, students will come up with a product idea and develop a business around that product. The prototype and/or product must be at least partly 3D printed. Students will create, test and improve prototypes: develop a business plan and accompanying Excel spreadsheet; manage a budget; build a website; devise a marketing plan and create a Kickstarter campaign (but not launch). Class culminates with a presentation where the groups “pitch” their ideas to an audience of students, faculty, parents and interested business alumnae.

CS604 AP Computer Science 6cr {12} AP EL [CS140 or CS344, DptRec]
AP Computer Science A is equivalent to a first-semester, college-level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using the Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The AP Computer Science A course curriculum is compatible with many CS1 courses in colleges and universities.
ENGLISH
The English Department contributes to each student’s intellectual development and teaches him essential skills of analysis, interpretation and expression. In our English classes, literature is a means to explore internal and external human issues intrinsic to a well-lived life, and the student encounters each literary work as an object of study in itself. We teach students about meaning and how and why humans need and make meaning in life. We teach writing and composition, processes that meet each student’s individual needs. We teach essential elements of good writing, from the foundation of the sentence to the fulfillment of the essay; we teach structure and content, clarity and concision, and we emphasize that a student who thinks deeply writes well and best explores and develops his ideas of the world.

EN001 English 07 6cr {07} RQ
Seventh grade English begins with the premise that thinking skills derive from diligent study habits. Skills and habits are central to the fulfillment and success of the Delbarton student. Thinking, reading, speaking, and writing are inter-related skills, thus each student will encounter and experience language and literature as a writer, speaker, and reader. Student learning objectives include basic skills like grammar, word usage, and sentence mechanics. We make literature a lively part of the student’s academic and personal life, with assigned and free reading assignments. Student will learn to think interpretively and explore the written word as a living entity, full of mystery and wonder. The texts for the course cover a wide range of literary elements, including setting and character. Students will study Greek Gods and Heroes, Beowulf, and The Hobbit among other works. In addition, students will explore and write about poetry and short stories as they begin to learn critical aspects of literature and literary achievements.

EN050 English 08 6cr {08} RQ
Eighth grade English continues the introduction of different literary forms, including the novel, the short story, and poetry. While studying these literary forms, each student will focus on improving his reading comprehension, devote attention to character development, and examine structural aspects of the texts. Each student will hone their study skills and organize themselves in order to abide the assigned and free reading options. In tandem with the study of literature, students will focus on several forms of academic writing, including expository and narrative compositions. Students study the writing process and work to develop solid paragraphs and analytical techniques, leading to comprehension of the five-paragraph essay format. As a part of the writing process, students also study basic elements of English grammar and usage and vocabulary. Literary works include Of Mice and Men, The Curious Incident of the Dog in the Night-time, and Lord of the Flies.
EN101 English 09 6cr {09} RQ
Ninth grade English concentrates on developing fundamental language skills. The teaching of composition in ninth grade focuses on clear and logical written expression using a process approach, in which students will learn pre-writing techniques, to develop a thesis, and to create unity and coherence in a paragraph, linking ideas logically in a longer essay. Students will practice how to draft and revise, starting with the individual sentence, sentences in sequence, and culminating in the fulfilled paragraph. Through grammar instruction, students will review and reinforce the importance of mechanics, word choice, and sentence variety. By the end of the year, students will demonstrate competence in the body paragraph, and familiarity with the five-paragraph analytical essay. Writing assignments may also include descriptive, narrative, and personal writing. To study literature more effectively, students will develop close-reading skills, learn important literary terms, and understand formal aspects of the literary works, including perspective, tone, and symbolism. Class discussion and writing will focus on the literary work itself and on making connections between the text and the student’s own life as he begins to see patterns of human universality in literature. The course will offer coming-of-age tales and heroic archetypes. The literary works will include A Tree Grows in Brooklyn, Romeo and Juliet and To Kill a Mockingbird.

EN105 Rhetoric, Persuasion, and the Digital Age 2cr {09} RQ
So that students may learn to communicate effectively and safely across all media, this course will introduce the fundamental elements of communication and rhetoric. Students will focus on aspects of digital literacy and Security, develop critical and analytical reading and writing skills, and, to assist each student to harness the robust potential of the information age, students will learn the elements of successful argument and persuasion – the rhetorical appeals of ethos, logos and pathos – and put them into practice as providers of information. Through public speaking, multimedia and web-based projects, each student will present information that is consistent with effective communication and learn to recognize what is missing from ineffective or manipulative communication. In this way, the course will promote internet utility, safety and caution. In addition, this class will encourage and demonstrate appropriate internet interactions, such that students properly and ethically put the power of the internet and the information age to use.
EN201 English 10 6cr {10} RQ
In tenth grade English, students will focus closely on detailed characteristics of literary forms through reading and studying poetry, short stories, dramatic works, novels, and non-fiction. Students will continue to explore coming-of-age and heroic quest fiction in the sophomore year. Instruction in writing will stress researching, organizing, outlining, and revising the multi-paragraph analytical essay. Most compositions in the sophomore year consist of literary analysis. Students will develop the ability to write clear, concise and cogent analytical prose. Additionally, student writers will focus on appropriate word choice, MLA citation and format, and transitional devices as students strive to achieve assurance and confidence in their writing. Students will read the following literary works: The Catcher in the Rye, This Boy’s Life and Macbeth.

EN301 English 11: American Literature 6cr {11} RQ
The eleventh grade curriculum stresses close-reading skills, intensive reading of major American literary works, and analytical and interpretive essay writing. As students read selected works from 19th, 20th, and 21st century authors, they will explore some of the complex, often contradictory themes that comprise the American experience and identity. Students will develop critical thinking skills as they examine the context of the ideas behind these works. The readings in fiction and non-fiction will reflect the diversity of the American experience. Texts will include works by Ernest Hemingway, Frederick Douglass, F. Scott Fitzgerald, and August Wilson. Students will develop their skills in writing structured, analytical essays, persuasive essays, and synthesis essays. Students will focus on close reading, explication using textual support, and how to convey their understanding of a text in their writing. Emphasis on MLA format, vocabulary development, and shorter, in-class timed writing responses will also be integral aspects of the junior year curriculum.

EN401 English 12: World Literature 6cr {12} RQ
In twelfth grade, students will study great works of world literature to learn more about themselves and what it means to be human and alive in a specific place and time. This exploration will focus on many literary forms – the novel, drama, and poetry. From the Elizabethan age to the post-modern era, class readings will encourage students to understand multiple human perspectives. A central theme students will explore is man’s “search for identity” as it has been conveyed through literature. Students will read Dante’s Inferno, Shakespeare’s Hamlet, and Shelley’s Frankenstein. To provide significant opportunities for students to examine man’s living circumstances in the modern world, throughout the year, writing instruction will focus on expressing personal views effectively and on interpreting each text with the author’s perspective in mind. The curriculum will emphasize continual development and refinement of each student’s critical thinking, and interpretive and analytical writing skills.
EN403 Introduction to Theater 6cr {12} EL Fa
This course is an introduction to the study of drama and live theater performance. Seniors will use the Fine Arts Center stage as a focal point for much of their course work, reading diverse scripts and learning to appreciate the historical changes in dramatic presentation. The course will introduce Ancient Greek tragedy, Roman comedy, and readings from the Elizabethan stage. As well, students will encounter 20th Century American dramatists and contemporary stagecraft. Students will act and direct, and write and produce staged readings and other scripted dramas. Students will interpret and deliver monologues, soliloquies, and act in extended dialogues with other actors. Participation in this class will expose students to performance preparation techniques that they can use in everyday situations to assume leadership roles in small and large groups.

EN406 Creative Writing 6cr {12} EL Fa
This arts elective is open to all seniors who wish to develop and broaden their writing skills for college by experimenting with different creative forms of writing. Students will learn the short forms of fiction: poetry, one-act plays, and short stories. Students will study content and method and write creatively in these common forms. In the non-fiction form, students will build upon their past knowledge of analytical writing with the purpose to strengthen their personal writing voice. Students will learn to determine noteworthy writing topics that stem from their personal experiences, to express emotion and craft sensory details in their writing, and to become stronger readers by way of exposure to a variety of short, contemporary non-fiction texts. Students will learn vital editing techniques to evaluate and revise their work, to collaborate with peers in small, weekly workshops, and to assemble individual portfolios for a final term grade.
EN605 AP English Language and Composition
6cr {11}
In eleventh grade, Advanced Placement English Language and Composition is available to qualified students who are ready for a more specialized English course. In addition to covering much of the same material as the standard eleventh grade American Literature course, this course spends significant time on close-reading literary analysis, rhetorical analysis, and argumentation. The nature of the course is designed to integrate the close examination of texts with the student’s own experimentation with writing. A successful AP student will not only enjoy reading, but he will also have a strong desire to explore the possibilities of the written word. Students should expect to be assigned approximately one hour of homework per night. At the completion of this program, the student takes the AP English Language and Composition examination administered by the College Board in order to achieve college credit and/or placement in higher-level college English courses.

EN602 AP English Literature and Composition
6cr {12}
In twelfth grade, Advanced Placement English Literature and Composition is available to qualified students who are ready for a more specialized English course. This program is intended to offer challenging college-level material and to engage the student in the critical reading and analysis of literature. Students should expect to be assigned approximately one hour of homework per night. In addition, frequent writing assignments will require the student to respond analytically and in depth to the literature he reads. At the completion of this program, the student takes the AP English Language and Composition Examination administered by the College Board in order to achieve college credit and/or placement in higher-level college English courses.
HISTORY

The program in the History Department leads the student to a knowledge of man as he lived in the past and as he relates with society in the present, so the student might comprehend the complexities of his own life and be capable of making mature judgments regarding men and ideas of his own time. In the acquisition of skills and knowledge in history and social sciences, the student is challenged beyond simply mastering certain factual data. He develops his intellect through practice in the skills of analysis and synthesis. He learns how historians and social scientists select evidence and make use of primary and secondary sources. He is encouraged to grow intellectually through active class participation, through extensive reading assignments, through writing interpretive and research essays, and through independent work in primary and secondary sources.

**HS001 World Cultures 07 6cr {07} RQ**
This course is designed to provide the student with an "insiders" perspective of the various cultures of the world. Specifically, it encourages the student to view civilizations very different from his own with a sensitivity and appreciation for the richness and diversity of mankind. In short, the course has as its focus the exploration of the various customs, values, histories and lives of the world's peoples. Such an exploration is intended to challenge the student to reflect on his own Western culture as well as on our common humanity. The contents of this course are examined through lectures, readings, films, discussions and activities.

**HS051 US History 08 6cr {08} RQ**
This course will explore the major themes of United States history from the Age of Exploration to the Civil War. Heavy emphasis will be placed on the Age of Exploration, Colonial development, the American Revolution, the Constitution and the Civil War. Because of the significant role our local (Morristown, New Jersey) history has played in many of the above events/issues, we will examine the local history concurrent with the national development of the country. The overriding questions that we will ask as we go through the "big picture" historical development of the nation will be: What was happening in Morristown, New Jersey during this time period? and What role did Morristown, New Jersey play in shaping this country's development?

As an age appropriate measure, a variety of local field trips will be woven into the curriculum, such as: Jockey Hollow, Washington's Headquarters, Waterloo Village, Ellis Island, Local Indian Tribes, etc.

**HS101 Ancient and Medieval History 6cr {09, 10} RQ**
The student is introduced to the discipline of history by a selective approach to themes recurrent in the ancient civilizations of the western world. The student learns the basic historical methodology through a use of primary and secondary sources. Increasingly the student is encouraged to draw his own conclusions and insights about history. The important civilizations of Mesopotamia, Egypt, Greece, and Rome are studied as is the Medieval period. (Archived Course)
HS102 World History I 6cr {09} RQ
World History I is the first part of the two part World
History sequence for 9th and 10th graders. World History
I aims to develop greater understanding of the evolution
of global processes and contacts among with different
human societies from the beginnings of human
civilization (c. 8000 BCE) through the end of the
postclassical era (c. 1450 CE). This understanding is
advanced through a combination of selective factual
knowledge and appropriate analytical skills. The course
highlights the nature of changes in international
frameworks and their causes and consequences, as well
as comparisons among major societies. It emphasizes
relevant factual knowledge applied to leading
interpretive issues and types of historical evidence. The
course offers balanced global coverage, with Africa, the
Americas, Asia, Europe, and Oceania all represented.

HS201 European History 6cr {10, 11} RQ [HS101]
This course surveys the years 1450 - present. Topics
treated include: Renaissance and Reformation, dynastic
and religious wars, Absolutism, Revolutions, Nationalism,
Totalitarianism, economic life of the world community,
and other topics in cultural and intellectual history.
Students read, discuss, and analyze, in document form,
the works of major historians. The textbook provides a
basic chronological survey, and students utilize primary
and secondary sources as provided by the instructor.

HS301 American History 6cr {11, 12} RQ[HS201 or HS602]
The required course in the junior year is a chronological
survey of American History from the period of
exploration to the 1960’s. Concentration on certain
topics (as determined by the individual instructor) in
political and social history superimposes a topical
framework on the chronology. Areas of concentration
include: Puritanism, colonial democracy, the Revolution,
Constitution and the development of political parties,
Jacksonian Democracy, causes of the Civil War and pre-
war reform, slavery and abolition, freedom and
migration of the black American, populism and
progressivism, war and diplomacy in the 20th century,
the growth and role of the federal government and the
presidency in the twentieth century.

HS400 Contemporary Issues 6cr {12} EL
This course examines the key problematic issues in our
world today and relates the general trends of the 20th
to the current events of the 21st century. The
course focuses on economic, scientific, cultural,
political, and military issues which affect all areas of the
globe. Topics covered include the Arab- Israeli conflict,
modern Africa, our current global economic crisis,
global warming, the global dependence on oil,
alternative energies, and a history of terrorism
throughout the 20th Century. All major current events
will be discussed daily.
HS403 International Relations 6cr {12} EL
This course examines both the twentieth century history of the United States in foreign affairs and contemporary issues of international relations. By examining the rhetoric and actions of key US actors, it encourages students to try to understand foreign cultures, different economies and various ideologies. Finally, the course enables students to begin an evaluation of various foreign policies and of the nature of the world order.

HS405 Introduction to Philosophy 6cr {12} EL
The discipline of philosophy attempts to develop a comprehensive vision of the world and human existence. This course introduces students to the fundamental philosophical questions concerning the nature of reality (metaphysics), the possibility of knowledge (epistemology), and the nature of value (ethical theory) by engaging seminal thinkers including Plato, Aristotle, Descartes, Locke, Hume, and Kant. The course content is examined through primary and secondary source materials, lectures, films, oral presentations, student projects, and class discussions.

HS602 AP European History 6cr {10} AP EL [HS101, DptRec]
The course treats the major historical events of the period from the Reformation to the middle of the twentieth century. Emphasis is placed upon the political, economic and social developments of the period. Students are asked to engage in historical interpretation of documents and emphasis is placed upon analytical interpretation of historical events. Extensive reading in the works of major historians is required. Specific test skills are also treated. At the conclusion of the course, students take the AP European History exam, administered by the College Board.

HS604 AP World History 6cr {12} AP EL [DptRec]
AP World History offers motivated students the opportunity to immerse themselves in the processes that, over time, have resulted in increasing interactions of different peoples, societies, and cultures. The purpose of the course is to develop greater understanding of the evolution of global processes and contacts in different types of human societies as well as comparisons among major societies. This understanding is achieved through a combination of factual knowledge and analytical skills. Students learn to “do history” by learning the steps a historian would take in analyzing historical events and evidence. The course offers balanced global coverage, with Africa, the Americas, Asia, Europe, and Oceania all represented.
HS606 AP American History 6cr {11, 12} AP EL [HS201 or HS602, DptRec]
The course considers the political, social and economic development of the US from the period of exploration through Gulf War II. Students interpret historical documents and evaluate historical interpretations. The works of outstanding historians are read. Significant attention is given to research, essay writing, and analytical skills required for test taking. At the conclusion of the course, students take the AP US History exam, administered by the College Board.

HS 609 AP US Government & Politics 6cr {12} AP EL [DptRec]
This course undertakes an academically rigorous study of the structure and function of American Government. It is designed to provide students with an understanding of the formal and informal institutions of the US Government and the contribution each makes to the policy making process which influences our daily lives. Students will also study the relationship of the individual to government through political parties, interest groups, elections, and the media. In addition to content material, students will develop writing, critical thinking, research, and oral argument skills. At the conclusion of the course, students will take the AP US Government and Politics exam administered by the College Board.

HS610 AP Macro Economics 6cr {12} AP EL [DptRec]
This is an introductory course in economics and includes consideration of individual and collective action conditioned by the availability of scarce resources. Students will develop an understanding of economic problems that face individuals and societies. Course content will deal with the following macroeconomic topics: Determinants of aggregate employment and national income, evaluation of government policies to alleviate inflation and unemployment, money and the banking system (Monetary Policy), International Trade and prospects for world trade. The course explores differing points of view in answering the four central questions confronted by any economic system: (1) What determines what is to be produced? (2) What determines how it is to be produced? (3) What determines how a society’s productive output is distributed among its members? and (4) What determines the rate at which a society’s productive capacity will grow? At the conclusion of the course the students take the AP MacroEconomics exam, administered by the College Board.
The Modern Language Department endeavors to train students to function effectively in the target language in all four language skills: listening, speaking, reading and writing. Cultural awareness is an integral part of the core program on all levels, and is enhanced through the use of supplementary readings, films, web sites, field trips, Modern Language Clubs, and foreign exchange programs.

FR001 French Ia 6cr {07} and FR050 French Ib 6cr {08};
GE001 German Ia 6cr {07} and GE050 German Ib 6cr {08};
IT001 Italian Ia 6cr {07} and IT050 Italian Ib 6cr {08};
SP001 Spanish Ia 6cr {07} and SP050 Spanish Ib 6cr {08};

This two-course sequence in the Middle School covers (over a two-year period) the same material described in level I courses below.

FR101 French I 6cr {09, 10} LA; FR201 French II 6cr {09, 10, 11} LA [FR101 or DptRec];
GE101 German I 6cr {09, 10} LA; GE201 German II 6cr {09, 10, 11} LA [GE101 or DptRec];
IT101 Italian I 6cr {09, 10} LA; IT201 Italian II 6cr {09, 10, 11} LA [IT101 or DptRec];
SP101 Spanish I 6cr {09, 10} LA; SP201 Spanish II 6cr {09, 10, 11} LA [SP101 or DptRec];

This program of immersion in the target language emphasizes the development of listening comprehension skills. The first year student also learns to speak on a variety of everyday topics as well as perform basic routines of daily conversation. The student learns to read simple material and write what he can say. In addition to developing these communication skills, the student gains an understanding of the culture of the target language.

After a basic review of the more important topics of the first year’s work, the student continues to develop listening and speaking skills that enable him to participate in conversations in the target language. The student is also exposed to more complex grammatical structures and vocabulary in context. Increased emphasis is placed on writing skills through composition work. Cultural awareness and communicative proficiency remain goals of this level.
In the third year, special emphasis is given to developing more sophisticated communication skills in the target language. The student continues to learn vocabulary and more complex grammar and language structures in context. The focus of this level is on communication of ideas, and the creative use of the target language for self-expression is encouraged. Reading skills are further developed with the increased use of authentic materials and contemporary fiction and/or graded readers.

For some students, this is an elective course. For more advanced underclassmen, this class fulfills their graduation requirement in their junior year. The student continues to develop the active language skills of speaking and composition. Multimedia elements that combine video, audio and print are used to teach both language and culture. A thorough review of the basic grammar should prepare the student to take the SAT Subject Test by the end of the year.

An elective for seniors depending on demand and interest, this course continues the development of speaking and writing skills on a variety of topics drawn from the contemporary press, films, television and literature. Students should be able to express themselves on a variety of subjects commensurate with their years of study.
FR602 AP French Language 6cr {11, 12} AP LA [DptRec];
GE602 AP German Language 6cr {11,12} AP LA [DptRec];
IT602 AP Italian Language 6cr {11, 12} AP LA [DptRec];
SP602 AP Spanish Language 6cr {11, 12} AP LA [DptRec]

This is an intensive elective course designed to develop all four language skills: listening, speaking, reading and writing. The format of the course closely follows that of the Syllabus for Advanced Placement Language, as published annually by the College Board. At the conclusion of the course, students take the AP exam administered by the College Board.

SP606 AP Spanish Literature 6cr {12} AP LA [SP602, DptRec]

The Department recommends that this course be taken by those students who have successfully completed Advanced Placement Language. As the required reading list of literary works may change, prospective students are advised to consult the Syllabus for Advanced Placement Literature published by the College Board. At the conclusion of the course, the students take the AP exam administered by the College Board.

LA400 Foreign Literature in Translation 6cr {12} FA LA

The student will experience a cultural encounter through literature. This full-year course is divided into six units, each unit featuring representative foreign language authors and samples of his/her work in translation, emphasizing the historical background and cultural highlights of that period, and capitalizing on available movies, theater or musical presentations, and/or art exhibits appropriate to that author, country and time period. Each unit will be taught in English by a different instructor. The department presents the literature in its cultural context from the following languages: Spanish (from Spain and Latin America), French, German, Italian, Russian and any other language where there is instructor expertise.
Program of Studies
Languages, continued

AB101 Arabic I 6cr {09, 10} LA
The first year course in Modern Standard Arabic will be conducted in both English and Arabic. This elementary course introduces the new sounds and writing system along with certain morphological and syntactic features. After learning the script and the sound system, the course will eventually lead up to some speaking, listening, reading and writing skills in the target language. The first year student learns to initiate, respond to, and maintain simple conversation on a variety of everyday topics. The student learns to read and write simple material on familiar topics. By the first year, the student should understand Arabic minimally and produce simple sentences. In addition to developing these communication skills (speaking, listening, reading and writing) the student will begin to acquire some insight on certain aspects of Arab cultures and societies.

AB201 Arabic II 6cr {09, 10, 11} LA [AB101]
The second year course is a logical continuation of the elementary course in Modern Standard Arabic and will be conducted mostly in Arabic, but still using English under specific circumstances. After a basic review of the more important topics of the first year’s work, this course continues building Arabic vocabulary, grammar, and general communicative competence. The goal of this class is to increase communicative proficiency, in the target language, on a variety of situations through the use of everyday scenarios and functional vocabulary. The student is exposed to more complex grammatical structures and vocabulary in context. Increased emphasis is placed on writing skills through composition work. Students will also explore the differences between standard Arabic and the other dialects used in different regions of the Arab speaking world. Cultural awareness and communicative proficiency remain goals of this level.

AB301 Arabic III 6cr {10, 11, 12} LA [AB201]
In the third year, special emphasis is given to developing more sophisticated communication skills in the target language, therefore the class will be conducted in Arabic, except under special circumstances. Students will continue to develop all four skills (speaking, reading, writing and listening) by adding more vocabulary, complex grammatical structures, idioms and the cultural background important to gain effective communicative competence. The focus of this level is on communication of ideas, and the creative use of the target language for self-expression is encouraged. Reading skills are further developed with the increased use of authentic materials and contemporary fiction. The third year student will have an in-depth understanding on the history, politics, cultures, and societies of the Arab World.
AB401 Arabic IV 6cr {12} LA [AB301]

For some students, this is an elective course. For more advanced underclassmen, this class fulfills their graduation requirement in their junior year. The course will start by reviewing and honing communicative functions covered in the first three levels, then develop communicative abilities at the high intermediate level with an aim at reviewing and applying basic vocabulary and expressions covered in previous semesters. The course focuses on Arabic culture, vocabulary, and communicative skills, especially speaking skills. This course will further the student’s acquaintance with aspects of Arab culture through the exploration of Arabic-language media and Arabic-related web sites. Multimedia elements that combine video, audio and print are used to teach both language and culture. In the fourth year course, a student will listen to and be able to understand the main points of a speech, academic lecture, or news broadcast. The student will finally be able to discuss a number of specialized topics and be able to describe, narrate, argue a point, and illustrate with examples. Also, read and understand a wide range of fiction and non-fiction texts from the modern to the classical period on various topics with the limited help of a dictionary and learn how to use Arabic sources and references for research. Also, write long cohesive and articulate summaries, accounts and critical essays about the same topics with use of stylistic devices and idiomatic expressions. The student will recognize and use formal and informal register and style in appropriate situations. The student will research and learn about major topics in the history, politics, cultures, and societies of the Arab world. By the end of this course, students can expect to know most of the grammar of a high intermediate level of ACTFL proficiency in Arabic.
MATHEMATICS

The Mathematics Department has established a series of courses designed to teach students useful mathematical skills in numerical computation, algebraic manipulations, analysis of geometric configurations, and an understanding of elementary real-valued functions. In addition, the concepts of logic and reasoning are used in the development of methods and in the application of mathematical concepts to various real-life situations.

MA001 Algebra Ia 6cr {07} RQ
This course is the first half of a two-year program of instruction designed to give students in the middle-school a solid foundation in algebra, in preparation for further advanced study in mathematics. Topics covered include data and patterns in algebra, arithmetic operations on algebraic expressions, solving equations and inequalities, linear functions and systems of linear equations.

MA050 Algebra Ib 6cr {08} RQ
This course is the second half of a two-year algebra program for the middle school. Material is covered in depth to assure a complete understanding and mastery of algebraic techniques. Topics covered include functions, equations, and inequalities; matrices; probability and statistics; exponents; polynomials and factoring; quadratic equations and radicals.

MA101 Algebra I 6cr {09} RQ
Topics included in this introductory course in algebra are: the basic operation with polynomials, equations of one and two variables, lines and their slopes, the concept of functions and relations, ratios and percents and the properties of exponents and radicals. It is expected that the student have a thorough knowledge of arithmetic and an understanding of the real number system.

MA201 Geometry 6cr {08, 09, 10} RQ [MA050 or MA101]
This course introduces properties of lines, planes, triangles, quadrilaterals, and circles. Reflections and transformations are used as a means of illustrating congruence of planar figures. Methods of inductive and deductive reasoning are used in the proof of theorems and constructions. Areas of polygons, circles, solids, and volume of solids are also discussed. Additional topics include a study of the trigonometry of right triangles.

MA301 Algebra II & Trigonometry 6cr {09, 10, 11} RQ [MA201, DptRec]
This course is designed to review the basic concepts of elementary algebra on a more sophisticated level. In addition, such topics as matrices, sequences and series, and data analysis are included. The last third of the year is devoted to the study of trigonometry as circular functions, with special emphasis on the solution of equations.
MA302 Pre-Calculus 6cr {09, 10, 11} RQ
[MA301, DptRec]
This is a course designed to give the student background material needed in preparation for calculus. Thorough study of graphing methods is included, as well as development of the theory of functions, logarithmic and exponential equations, sequences and series, trigonometry, polar coordinates and complex numbers. Elementary concepts of calculus are also discussed.

MA402 Calculus I 6cr {11, 12} [MA302, DptRec]
This course is designed to prepare the student for further study in the field of calculus. Topics include functions and relations, trigonometric functions and identities, the concept of a limit, and elementary techniques of differentiation and integration. A student should have a thorough preparation in algebra and geometry.

MA410 Fundamental Accounting Principles
6cr {12} EL
This is an introductory year-long course in basic accounting. Both financial and managerial accounting topics are covered, so that the course will be useful to students in their personal affairs and in their varied areas of educational specialty. The course focuses on the concepts and principles which guide the development of accounting information. The student is shown how accounting data are accumulated and how the resulting reports and statements can be effectively used in decision making. Thus, a solid foundation is built for later courses in business as well as accounting.

MA602 AP Calculus AB 6cr {10, 11, 12} AP EL
[MA302, DptRec]
This course is designed to be a full year of college-level calculus for the advanced student in preparation for the Calculus AB Advanced Placement Examination. Topics covered include maximum and minimum problems, derivatives and applications of the differential, techniques of integration, related rates, area and volume problems, curve sketching, and the study of exponential and logarithmic functions. A student is expected to have a thorough knowledge of functions and trigonometry before beginning this course. At the conclusion of the course, the students will take the AP Calculus AB exam administered by the College Board.
MA604 AP Statistics 6cr {11, 12} AP EL [MA302, DptRec]

Students will be introduced to the major concepts and tools for collecting analyzing and drawing conclusions from data. Topics will follow four broad conceptual themes: (1) exploring data - observing patterns and departures from patterns, (2) planning a study - deciding how and what to measure, (3) anticipating patterns - producing models using probability and simulation, and (4) statistical inference - confirming models. This course is for any student who has completed at least Pre-calculus. At the conclusion of the course, students will take the AP Statistics exam administered by the College Board.

MA606 AP Calculus BC & Multi 6cr {11, 12} AP EL [MA602, DptRec]

This course is designed to prepare students for the Calculus BC Advanced Placement Examination and to provide an introduction to multivariate calculus. The topics to be covered in this course include polar coordinates, vectors in two- and three-space, three dimensional geometry, partial differentiation, multiple integrals, infinite series, differential equations, vector calculus, line integrals and Green's theorem in the plane. This course is only for the student who has completed AP Calculus AB (MA602). At the conclusion of the course, the students will take the AP Calculus BC exam administered by the College Board.

MA701 Linear Algebra 6cr {11, 12} EL [DptRec]

This course introduces the student to concepts in college-level algebra with a particular emphasis on matrix theory, determinants, homogeneous and non-homogeneous linear systems. Applications to linear programming and economic models are discussed. Also, functions of several variables are introduced. This course is only for the student who has completed AP Calculus BC (MA603 or MA605).
Music may be experienced as performer, composer, and listener. The Delbarton Music Department program provides experiences for students in each of these areas. All students are introduced to the creative and listening process of music in the 7th and 11th grade classes. Classes offered in the 12th grade include keyboard playing, music history, and music theory.

The primary performing ensembles are the Schola Cantorum (chorus), Wind Ensemble (band), and the Abbey Orchestra. Smaller chamber groups such as brass ensemble, woodwind ensemble, or percussion ensemble exist in relation to the primary large ensembles. All performing ensembles rehearse in the afternoon or early evening as part of our extra-curricular music program.

A student may further his performing skills through private lessons in voice, piano, organ, keyboard, and woodwind, brass, string, and percussion instruments. Lessons are normally in the afternoon and early evening.

**MU001 Music 07 2cr {07} RQ**
All students are required to take this one-term course introducing them to rhythm, melody, harmony, and tone color. In this course students create, listen and perform.

**MU302 Introduction to Music Listening 2cr {11} FA RQ**
This is a one-term required course in which the student analyzes musical patterns of statement, contrast, accent, progression, repetition, and variation. Students will learn the necessary skills and terminology to interact and critique the music they hear every day. The student is introduced to a variety of musical styles. There is an emphasis on the aesthetic experience of music.

**MU306 Introduction to Music Theory 2cr {11} FA [DptRec]**
Using the electronic keyboards and computers in the Delbarton music studio, the course covers triads, intervals, scales, cadences, notation, elements of musical form, part writing, sight singing, dictation in melody, rhythm and harmony, applying these to written and keyboard work. There is also an emphasis on creating musical compositions. The course serves as a preparation for Advanced Placement Music Theory.
MU403 Keyboarding 6cr {12} EL FA
This course is meant for students with little or no previous piano background. Students study all the elements that go into playing piano music including: posture, note reading, rhythm, counting, expression, and other musical markings found in a piano score.

Students will be expected to use the time provided in class to practice assigned pieces in a purposeful way. Upon leaving this class students can expect to read music on the grand staff, play in a variety of hand positions, accurately count and perform rhythms, and have a working knowledge of scales and chords.

MU404 Music History 6cr {12} EL FA
Primarily a listening course for both the performer and non-performer exploring all styles of music (classical and non-classical, western and non-western) from the Middle Ages to the Twenty-First Century, the course utilizes the resources of the music department’s music laboratory studying musical works through recordings, films, and live performances. The student will also have the opportunity to develop basic performance and composition skills using the laboratory’s computers and digital keyboards. The goal of the course is to develop an understanding and appreciation of all styles and types of music.

MU606 AP Music Theory 6cr {12} AP EL FA [MU306, Ability to Read Music, DptRec]
This full-year course is a deeper investigation into the technical aspects of music studied in the junior year Introduction to Music Theory course. Topics studied will include: reading notation, key signatures, time signatures, chords, Roman numeral analysis and function, figured bass realization, four part chorale writing, dictation, ear training, sight singing, and composition. This course is a skills course and will require practice of skills outside of the classroom for success. Prerequisite: Completion of MU306 or equivalent training. At the conclusion of the course, the students will take the AP Music Theory exam, administered by the College Board.
PHYSICAL EDUCATION & HEALTH

Physical Education is that part of the educational process which concerns itself primarily with the development of students through physical activities. It is desired that students acquire knowledge and understanding related to the development and function of the human body and to the mechanical principles of human movement. Physical activities are designed to foster creativity and self-direction and to encourage vigorous activity. Through activity, students develop physical fitness, agility, balance, endurance, flexibility and strength. Incorporated in the program are experiences which reinforce the development of behaviors, attitudes, appreciation and understanding required for effective human relationships.

PE021 Physical Education 07 2cr {07} RQ; PE055/PE057 Physical Education 08 4cr {08} RQ
In grades 7 and 8 emphasis is placed on the instruction of basic skills necessary to participate in team sports. There are also many other creative activities used to develop a better sense of human movement.

PE121 Physical Education 09 2cr {09} RQ; PE204/PE221 Physical Education 10 4cr {10} RQ
Grades 9 and 10 emphasize physical fitness, coordination and conditioning. There is also a strong emphasis on individual and team sports competition with an aim toward improvement in individual skills and techniques in each activity.

PE321 Physical Education 11 2cr {11} RQ; PE421/PE423 Physical Education 12 4cr {12} RQ
During the eleventh and continuing through the twelfth grade, there is participation in team and individual sports. Much emphasis is also placed on lifetime and carry-over activities so that upon graduation each student should have acquired the habit and desire for physical activity and should seek to continue one or more activities for life.

Individual work may also be done at the request of the school nurse or a student’s physician to help rehabilitate atrophied muscles as the result of injury or operation.
Sports and activities are organized during the school year as follows:

**Fall Term:**
- Presidential Physical Fitness Testing Program
- Soccer, Flag Football, Floor Hockey, Badminton, Aerobic Conditioning (optional), Weight Training (optional)

**Winter Term:**
- Basketball, Volleyball, Paddle Ball, Indoor (Box) Lacrosse, Team Handball, Badminton, Strength Training (optional)

**Spring Term:**
- Track and Field, Softball, Tennis, Golf, Strength Training (optional), Swimming

**Health**

It is the purpose of the Health Education courses to draw information from psychology, sociology, genetics, ecology and countless other fields, integrate it, and pass it along so that students can use this knowledge to make intelligent health related decisions in their daily lives.

Also, the courses are designed to isolate some of the more perplexing questions that students may have and provide opinions and data to help them answer such questions.

The topics treated at the various levels of the health program are as follows:

**Grade 07:**

**PE022 Grade 7 Health 2cr {07} RQ**
This course is designed to teach students current life skills. Students will examine life skills such as teamwork, decision making, coping with anxiety and anger through various communication outlets.

**Grade 08:**

**PE056 Grade 8 Health 2cr {08} RQ**
This course is designed to teach students about the evolving subject matter of bullying in society. Students will examine bullying from multiple angles (texts, documentaries, current events). During the course, the student will be shown various ways in which one can be bullied, ways one can prevent bullying, and the roles involved in bullying.
Grade 09:

PE103 Grade 9 Health 2cr {09} RQ
This course is designed to teach students about the evolving subject matter of substance abuse. Students will examine and research such topics as caffeine, tobacco, alcohol, depressants, stimulants, marijuana, opiates, and club drugs. During the course, students will become aware of the short-term and long-term effects of all substances studied. Students will also be made aware of the potential legal consequences of the use or misuse of all substances studied.

Grade 10:

PE204 Driver Education 10 2cr {10} RQ
This course consists of classroom work with a focus on defensive driving and the rules which govern driving in the state of New Jersey. Driving skills, discipline, and related attitudes are addressed to promote safe and courteous driving. Students may qualify to get their driving permit by attaining the necessary score on the final exam.

Grade 11:

PE303 Grade 11 Health 2cr {11} RQ
This course is designed to allow students to participate in the Red Cross certification program for Adult first Aid, CPR, and AED. Classroom instruction will be a mixture of lecture, demonstration, and hands on practice with individual skills. Students will learn how to respond to many different emergency situations and how to treat these situations using First Aid, CPR, and AED techniques. Students will earn their certificates upon completion of the course.

Grade 12:

PE422 Grade 12 Health 2cr {12} RQ
This course is designed to assist students in making the transition to college life and an independent living situation. Students will research and discuss procedures that must be followed, possible options, and potential problems that may occur in various components of college life. Rules, regulations, and consequences of not following these rules and regulations are also researched and discussed. Students will also make a presentation to the rest of the class on how to perform a task associated with independent living.
REligious Studies

The study of Religion is required of all students. The department encourages students to pursue an understanding of their faith, and to respect the religious beliefs of others. Through its curriculum the department seeks to inform students about the nature of religion and religious traditions in a diverse and changing society. In the spirit of ecumenism fostered by the Church at Vatican II, and a hallmark of our age, the curriculum remains faithful to the Roman Catholic and Benedictine heritage of Delbarton and fosters dialogue and understanding among students. The department requires that one course (2 credits) be taken in each of the core areas: History, Morality, and Scripture as indicated in the following course descriptions.

All freshmen, as part of their introduction and orientation to Delbarton take the same courses: RE108 (Gospels) and RE109 (Benedictines). It is advisable that students complete the remaining departmental requirement (Morality) as soon as possible to avoid scheduling problems later, and allow greater freedom of course selection.

RE002 & RE020 The Bible 4cr {07} RQ
A firm foundation in the characters, stories, and themes of both the Hebrew and Christian Testaments.

The religious, social, historical and political developments of Jews and Christians are included in this biblical survey. This is done through a select reading of the Pentateuch, Judges, the Prophets, the Gospels, and the Acts of the Apostles.

RE051 & RE052 Great Religious Thinkers 4cr {08} RQ
A presentation of contemporary heroes of faith as well as great religious minds from many and diverse traditions of faith throughout history. An examination of these heroic lives as models for others through reading literature by or about these great religious thinkers. This course is designed to demonstrate that through a diversity of faith traditions there is also a unity among believers in every age.
RE108 The Gospels 2cr {09} S RQ
An exploration of the writings of the four evangelists found in the Christian Testament. Students become acquainted with the Semitic Middle East of two millennia ago: its culture, politics, history, and theological milieu. Gospels are examined as both sacred literature and guides for understanding (and acting upon) beliefs. The fruits of biblical criticism are employed in the analysis of a text, and comparative approaches are employed to demonstrate the unique portrait of Jesus found among the evangelists. (Scripture)

RE109 The Benedictines 2cr {09} H RQ
An overview of the rich and ancient heritage of the Benedictine Order within the monastic tradition, beginning with St. Benedict, father of western monasticism and co-patron of Europe. This course will include, among other things, an introduction to the Rule of Benedict, monastic spirituality and prayer— in common and lectio divina, a history of the Order, highlighting influential monks and nuns, art and music, and the Benedictines today. (History)

RE204 Religion & Literature 2cr {10} H
How do ideas about a Supreme Being, the mystery of life, the search for meaning and purpose, faith, suffering, good and evil, and the after-life shape the stories we tell? How do these ideas shape our interpretation of these stories? This course explores these questions of faith and religion through an examination of selected works of fiction, drama, and poetry, taken from American, British and world literature, and deals with various questions related to God and religion. (History)

RE205 Genocide Studies 2cr {10} M or H
An exploration of the roots of suffering and evil in the modern world. The Holocaust, the Cambodian massacre, the Turkish slaughter of Armenians, mass murder in Rwanda, ethnic cleansing in Bosnia, and other contemporary situations demand a moral response. Opportunities to discuss the dangers posed by ethnic, racial, political and religious persecution in contemporary societies, as well as the general moral issues surrounding prejudice. Primary texts help students understand the role of religious and state institutions in promoting or opposing genocide. (Morality or History)
RE209 Pauline Epistles 2cr {10} S
This course investigates the authentic Pauline letters and the world in which St. Paul traveled and preached, i.e. the beginnings of (urban, Gentile) Christianity. The class concludes with an investigation of how Christianity changed over the next 100 years by reading the pseudo-Pauline letters. (Scripture)

RE212 Family Life 2cr {10} M
Adolescence is both an exciting and stressful experience, accompanied by an array of feelings and anxieties, doubts and questions. This course in reverence for life and family endeavors to portray youthful changes as challenges, not problems. Physical, psychological, emotional, spiritual, and moral dimensions of human sexuality are discussed. This course places genital activity within a framework of commitment, faithfulness and a genuine openness to life. As he considers the possibility of his future role as husband and father, the student is encouraged to focus on the present quality of relationships with family, friends and God. (Morality)

RE301 Prophetic Traditions 2cr {11} S or H
An examination of Wisdom literature in the Hebrew Scriptures as an invaluable source for understanding God and people in their relation to God. The golden age of prophecy follows, beginning with Isaiah and other eighth century prophets and concluding with the last of the books of the Hebrew Scriptures, the Prophecy of Malachi. In approaching the text as sacred literature, the student is encouraged to see God's historical word through various literary genres as well as the implications of justice in the modern world. (Scripture)

RE303 Social Justice 2cr {11} M
A review of a number of problems facing society today. Perspectives from Scripture, history, and Church teaching are included to bring this message to bear on specific issues, including poverty and hunger, global and environmental concerns, sexism and racial prejudice, and the aged and infirm. Finally, faith and justice will be linked to peace by helping students better understand that if they want peace, they must work for justice. The implications of peaceful responses to conflict are included, as well as the challenge to look at war with a new attitude in this post-cold war age. (Morality)

RE308 Sacraments 2cr {11} H
An imaginative exploration of "sacramentality" as the essence of life - how life's meaning reveals and makes present the saving love of God. This intriguing survey of the origin and development of sacramental rites highlights the sacraments of initiation. An overview of the historical and cultural evolution of sacramental rituals and practices provides students with a mature understanding of the liturgies they experience. By understanding Jesus as the sacrament of the Father and the Spirit-led church as Jesus’ sacrament to the world, the student explores each of the sacraments as the activity of the Risen Christ in the world today. (History)
RE 313 World Religions 2cr {11} H
A fresh look at great religions and cultures around the world. Informed and informative treatment of world religions is examined to provide a better grasp of the worship, beliefs, and practices of diverse religious traditions. The similarities and interdependence of these religions, as well as their differences, are considered. This comparative approach to religion includes an examination of Judaism, Christianity, Islam, Buddhism, and Hinduism. (History)

RE 402 Christian Lifestyles 2cr {12} M
A clear understanding of the four basic lifestyle paths - single, married, religious and ordained. Through an examination of life themes common to all four paths, students develop methods of coping with developmental tasks of young adulthood. These lifestyles are examined in light of the gospel message. The major focus of the course is the consideration of marriage as a sacrament, formed by Scripture and tradition. Concomitantly, attention is called to the development of a committed relationship as well as the ramifications this has for people in today's society. Consideration is given to finding a lifelong partner, the preparation for marriage, growth and fidelity of covenant love, for the expression of this love through the raising of children. (Morality)

RE 403 Quest for God 2cr {12} H
Reflections on the classical, medieval, modern, and contemporary philosophical approaches to the phenomenon of religion and the existence of God. Theistic and atheistic positions are discussed, focusing on the modern philosophical criticism of traditional religion. What rationales can be provided for accepting or rejecting God in this generation and the next? Questions such as the problems of evil, sin, and suffering are also explored, and the psychological search for meaning and purpose which draw people to religion is examined. (History)

RE 404 Ethics Seminar 2cr {12} M
Exploring current and compelling moral issues which face society today. Students look with a critical eye at ethical implications to modern dilemmas. After an examination of various methodological approaches of ethical theories along with principles and responsibilities involved in making moral decisions, students will consider the history and current state of research on a contemporary moral issue. Issues in bioethics such as abortion, procreative technologies, informed consent, euthanasia, are among some of the possible topics examined. Other topics, such as access of information, privacy, business and political ethics, may also be explored. (Morality)
RE 411 Pentateuch Studies 2cr {12} S
An appreciation of the first five books of the Hebrew Scriptures as the foundation of a faith that believes God has spoken and has elected a people. May include a further study of sixteen books that trace the development of the history of that people, including an understanding of the Exodus, the conquest or settlement of the Promised Land, the monarchy and subsequent exile. The discoveries of biblical archeology bolster an appreciation of the political, historical, cultural, and literary context that sheds light on the text. Careful examination of major themes such as creation, covenant, and community helps the student apply this sacred literature to daily living. (Scripture)
SCIENCE

The Science Department attempts to increase knowledge of the world around the student by increasing his critical awareness of biological, chemical, and physics phenomena. This is accomplished by familiarizing the student with the vocabulary of science, and presenting the processes of scientific inquiry and methods for drawing conclusions. Additionally, the student will be trained to draw his own conclusions about how acquired knowledge may be applied to the world and to his own life in particular.

Our students are encouraged to reason deductively from the existing body of knowledge, to reason inductively from their own observations and experimental data, and to arrive at general regularities and underlying themes and principles. Also, they are shown how to be proficient in problem solving techniques that are commensurate with their background in mathematical skills.

**IS001 Integrated Science I 6cr {07} RQ**

With an emphasis on critical thinking skill, IPS is designed to give students an understanding of the earth, its environment, and the universe. Through extensive laboratory work students are involved in the inquiry process of science. Hands-on experiments are designed to aid students in the developing of learning skill and processes such as observing, identifying, classifying, measure, inferring, hypothesizing and interpreting. Topics covered include universality of change from the weather and the rock cycle through plate tectonics to postulated changes in the universe. It continues with a look into the properties of matter and the structure of the atom and finishes with a look at the diversity of life on our planet. Term assignments in media, literature and research encourage students to experience science outside the classroom in their everyday lives.

**IS050 Integrated Science II 6cr {08} RQ**

This course is designed to introduce students to all of the physical sciences but primarily chemistry and physics. Students get a thorough introduction to the "scientific method." Through laboratory investigation and experimentation, students learn techniques of data gathering and interpretation.

**BL101 Introduction to Biology 6cr {09} RQ**

This course serves as the upper school introduction to the "science of life." Students learn the use of basic biological tools in laboratory investigations and study the classical biological experiments and current information on livings systems, their anatomy, structure and function. Topics include energy, photosynthesis, cell study, heredity, genetics, micro-biology and ecology. Problem solving is stressed.

**BL103 Advanced Introduction to Biology 6cr {09} EL [Placement Test ]**

This course includes all the topics above in BL101 plus additional topics. All topics are covered with greater depth and detail. This course prepares students for the SAT Subject Test.
CH201 Introduction to Chemistry 6cr {09, 10} RQ [BL101 or BL103]
This course builds upon the background established in first year biology and broadens the student’s knowledge in chemistry. Through lecture, experimentation and demonstration, the student gains a broader perspective of chemical principles involving atomic theory, chemical bonding, molecular structure, chemical relationships and thermodynamics. Through laboratory experiments the student is encouraged to discover principles, regularities and periodicity on his own.

CH203 Advanced Introduction to Chemistry 6cr {09, 10} EL [BL101 or BL103, DptRec]
This course includes all the topics above in CH201 plus additional topics. All topics are covered with greater depth and detail. This course prepares students for the SAT Subject Test.

PH301 Introduction to Physics 6cr {10, 11} RQ [CH201, CH203, or CH602]
This course is a presentation of a unified view of physical science through the analysis of basic principles and their implications and limitations. Special emphasis is placed upon the analytical understanding of physical phenomena through the frequent use of mathematics. Topics include: scalars, vectors, kinematics, Newton’s Laws and dynamics, conservation principles, work and energy, oscillatory motion, and electricity and magnetism.

PH603 AP Physics 1 6cr {10, 11, 12} AP EL [CH201, CH203, CH602 or PH301, DptRec]
This is a first-year course in physics that will prepare the student for the AP Physics 1 exam at the end of the year and serves as an alternate to PH301 Introductory Physics while also satisfying the graduation requirement. Topics in physics will be covered in greater depth than in PH301. As time permits, topics beyond those on the AP Physics 1 syllabus will be covered. The course is designed for the most capable juniors or seniors and may serve to fulfill a first-term science requirement at the college level.

PH604 AP Physics 2 6cr {11, 12} AP EL [PH603, DptRec]
This is a second-year course in physics that will prepare the student for the AP Physics 2 exam at the end of the year. The course is designed for the most capable seniors who have already taken AP Physics 1. The course covers topics not included on the AP Physics 1 syllabus such as fluids, thermodynamics, electricity and magnetism, light and optics and modern physics.

BL602 AP Biology 6cr {09, 10, 11, 12} AP EL [BL101, CH201, PH301, DptRec]
This is a second year biology course with the goal of preparing the student for the AP Biology Exam at the end of the year, and in so doing, provide the student with a general first-year college level biology course. The following topics are stressed: organic chemistry, cell physiology, genetics, microbiology, ecology and evolution. There is a heavy emphasis on laboratory work and the ability of the student to combine lecture information with readings for problem solving and further investigation.
CH602 AP Chemistry 6cr {10, 11, 12} AP EL [BL101, CH201, PH301, DptRec]
The main objective of this second year chemistry course is to prepare the student for the AP Chemistry Exam at the end of the year, and in so doing, provide the student with a general, first-year, college-level chemistry course. All fundamentals of first year chemistry are taught in greater depth and scope and with emphasis on problem solving and laboratory investigation.

PH607 AP Physics C Level 6cr {11, 12} AP EL [PH603, DptRec]
This is a second-year, in-depth, physics course that will prepare the student for the AP Physics Level C exams at the end of the year. The course is designed for the most capable seniors who have already taken AP Physics 1. Mechanics and Electricity and Magnetism will be covered at a level appropriate for those seniors considering majoring in science in college. Calculus is used throughout the course.

BL406 Environmental Studies 6cr {11, 12} EL [BL101, CH201, PH301, DptRec]
This is a laboratory and project-oriented course covering environmental studies. Subjects covered include earth systems and resources, species interactions and ecology, population dynamics, land and water use, genetics, energy resources and consumption, pollution, and global change. Proficiency in biology, chemistry, physics and basic computer usage is required due to the interdisciplinary nature of the course.

PH401 Advanced Physical Science 6cr {11, 12} EL [BL101, CH201, PH301]
This is a laboratory and project-oriented course in which a wide range of physical science topics will be undertaken. Topics covered will include astronomy, astrophysics, meteorology, modern physics, and geology.

PS601 AP Psychology 6cr {12} AP EL [BL101, CH201, PH301, DptRec]
The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields of psychology. They also learn about the ethics and methods psychologists use in their science and practice. At the conclusion of the course, students take the AP Psychology exam administered by the College Board.

SC609 Research in Science 6cr {11, 12} EL [BL101, CH201, PH301, DptRec]
This is a laboratory-oriented course designed for students who have been designated as gifted and talented in science. Students will be required to complete a research project which will be submitted for participation in a national, state, or regional competition open to high school science students. In addition, students will participate in a weekly seminar on topics that are not usually covered in traditional science courses.