PARKLAND HIGH SCHOOL
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William Dreisbach  Director of Athletics
Mark Stutz  Director of Visual & Performing Arts

HIGH SCHOOL GUIDANCE COUNSELORS
(Based on student's last name:  9th – 12th grade)
Mrs. Leslie Poremba  A -- Brn
Mr. Eric Roberts  Bro -- Des
Mr. Ryan Hulmes  Det -- Gaq
Mr. Jeremy Gordon  Gar - Hok
Ms. Bryna Witkowski  Hol -- Lak
Mrs. Jennifer Tabarani  Lal -- Mil
Mrs. Danene Krenicky  Mim -- Pln
Mrs. Meredith McGarr  Plo -- Sci
Mrs. Patty Macdonald  Sej -- The
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Mrs. Allison McPeek  College & Career Counselor

PARKLAND MIDDLE SCHOOLS
Orefield Middle School (610) 351-5750
Mr. Todd Gombos, Principal
Mrs. Monica Ouly-Uhl, Asst. Principal
Mr. Thomas J. Stoudt, Jr., Asst. Principal

Springhouse Middle School (610) 351-5700
Dr. Michelle Minotti-Zurinskas, Principal
Mr. Jeff Bartman, Asst. Principal
Mrs. Alison Z. Thompson, Asst. Principal

MIDDLE SCHOOL GUIDANCE COUNSELORS ('19 – '20)
Orefield Middle School
Mr. Greg Poremba, Grade 6
Ms. Lynda Strohl, Grade 7
Mrs. Elaine Letoski, Grade 8

Springhouse Middle School
Mrs. Megan Jenkins, Grade 6
Mr. Michael Gross, Grade 7
Mrs. Megan Bauer, Grade 8

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(610) 351-5500
Mr. Richard T. Sniscak, Superintendent
Mr. Rodney R. Troutman, Assistant Superintendent
Ms. Tracy E. Smith, Assistant to the Superintendent for Operations

CURRICULUM SERVICES
(610) 351-5540
Ms. Kelly Rosario  Mr. Jason Henry  Mrs. Diane Neikam  Mrs. Marjorie Evans
INTRODUCTION

This booklet contains the basic lists and course descriptions of the comprehensive curriculum offerings of Parkland High School. We hope that it will be helpful to you in selecting your program of studies. High school students face many choices and difficult decisions. Planning a program according to each individual’s needs is a demanding task. Parents, teachers and counselors are available to assist you in providing information that will be helpful.

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Dear Student,

Parkland High School strives to prepare you with the knowledge and critical skills needed to adapt to challenges in life, higher education, and future employment. To this end, our goal is to help you develop the following abilities: to be a lifelong learner; to continue to adapt and to grow; to develop a depth of knowledge; to adapt to technological change; to be respectful to the feelings and needs of others; and to be a contributing member of society.

Parkland High School offers a wide variety of courses, both required and elective, most of which can be scheduled for either a semester or a full year. Your guidance counselor has a good picture of your capabilities and interests and undoubtedly makes excellent course suggestions. Still, it is you and your parents who have to make the actual choices. They are important choices.

Let me urge you to review the courses listed and described on the following pages with your parents. Please note that some have prerequisites, while others do not. In making choices you should consider the career pathway associated with your future goals. Your parents can assist you in this area by providing an adult perspective to complement that offered by your guidance counselor. Certainly, we want you and your parents to be satisfied that you have made the best possible choices from among those offered by Parkland High School’s exceptionally rich curriculum.

Should you have any questions about the registration process, please talk with one of your teachers, an administrator, or make an appointment to see your guidance counselor. We will all do our best to address your concerns.

Sincerely,

James E. Moniz, II, Principal

FORWARD TO PARENTS

Your son or daughter will be selecting a Program of Studies soon for the coming year. This is an important task that requires reflection and decisions. We want you to be involved in this planning so that the course selections will be wise and consistent with future plans and goals.

To assist your son or daughter in this process, several activities take place here at the school. Assemblies are held to discuss the registration procedure with the students. Classroom discussions are held by teachers in each department to help students become more aware of the available courses. An evening meeting is scheduled for parents. Teachers make individual recommendations on the schedule of each student. Students confer with counselors to discuss and select courses. Parents are asked to review and discuss the final student selections with the students. In addition, at your request, counselors are available to discuss course selections with parents.

Caution can be an important ingredient in the selection process. A student’s study habits and skills are not likely to change drastically over the summer or as a result of entering the next grade level. The schedule of courses should be challenging enough to encourage academic growth, but not so demanding that the student becomes overwhelmed and discouraged. The student has four years, ninth through twelfth grades, in which to fulfill graduation and post high school entrance requirements or to gain entry-level job skills.

Students must make firm choices in selecting courses during program planning. The master schedule including the number of teachers, number of courses and students per section are built on initial student requests. Once the master schedule is completed, it is extremely difficult to accommodate scheduling changes.

Your son or daughter will choose a program and bring a copy home for your signature. Please use this opportunity to reflect with him or her on future educational expectations, plans and career goals. Your input is needed and appreciated.
GUIDELINES FOR PROGRAM PLANNING

Planning your program of study each academic year is one of the most important tasks a student will complete throughout the four years at Parkland High School. Students will be guided through this process by faculty, counselors and administrators, as they closely follow graduation requirements. Counselors will present an overview of the program of studies book, highlighting prerequisites and course sequences. In addition, all teachers will review the content for next year’s courses and provide guidelines to assist with selection in their specific areas. Listed below are some basic guidelines to follow when selecting courses for the next academic school year:

1. Motivation, interest and aptitude are important factors to consider when selecting courses. Students are encouraged to challenge themselves with the most demanding course of studies they can successfully complete in a given academic year.
2. Previous levels of achievement should be reviewed to determine possible course selection. When selecting a sequential course, students should have achieved a “C” or better in the preceding course.
3. Graduation requirements must be reviewed each year to determine appropriate progress in all required subject areas.
4. Students must select a complete schedule for each academic year. Credit and period requirements are listed on the front of the registration sheet for each grade level.
5. Students should review their academic records to identify areas of strength and weakness. This information should be considered when planning for the upcoming academic year.

Teachers and counselors will review the course selections for students, advising them of an appropriate academic program of studies. Teacher recommendations can be a valuable source of information, guiding the student through the correct course sequences. Counselors will meet with each student to review the entire academic schedule and to track graduation requirements. Parents will be contacted if a course selection appears to be too difficult for a student to complete successfully. This determination will be based upon previous classroom performance, test scores and other standardized data. As a team, the student, parent, teacher and counselor will work together to select a challenging, yet realistic, academic program of studies for each pupil at Parkland High School.

COUNSELING SERVICES

School counselors are an excellent resource when concerns or questions arise regarding course selection and post-secondary planning. Conferences can be requested if students are not achieving at levels commensurate with a student’s ability and academic progress is not being made. In addition, counselors are available to work with students who exhibit at-risk behaviors or face adjustment and transition problems. Appointments can be scheduled by contacting the respective counseling offices of each school.

Parkland High School (610) 351-5610
Orefield Middle School (610) 351-5750
Springhouse Middle School (610) 351-5700
CAREER PATHWAYS

Career Pathways is a comprehensive program of career awareness, exploration, and preparation/application. K-12 in nature, Career Pathways establishes a curriculum with two different, yet equal, programs of study. Both the “Traditional Academic” pathway and the “Technical Academic” pathway offer a rigorous, practical education which helps students focus on a non-binding career cluster in high school and guides them in the selection of course sequences necessary to achieve their educational and career objectives. Parkland’s goal is to meet the individual needs of students while, at the same time, preparing them to find success as an adult.

The Career Pathways program aims to achieve the following objectives:

1. To raise the level of learning and meaning for all students
2. To prepare all students for lifelong learning
3. To provide for an improved system of counseling and management for students
4. To provide for flexibility in career choice and focus in course planning

How Does Career Pathways Work?

By the middle of eighth grade, students will have been introduced to the four broad career clusters that form the basis of the Career Pathways model. They are as follows:

1. Business and Communication Technology
2. Engineering and Industrial Technology
3. Arts and Humanities
4. Health and Human Services

Students will then choose their academic focus by enrolling in the “Traditional Academic” program, which is for students whose plans include study at a traditional four-year college or university, junior college, or community college, or the “Technical Academic” program, which is for students whose interests lie in the pursuit of a career through study at a vocational-technical school, trade school, business school, or initial entry into the world of work. Students will then focus on a flexible career plan within their chosen path.

Also, within the core curriculum of the “Traditional Academic” and “Technical Academic” programs is a list of electives within the four career clusters from which students will choose. If at any time throughout high school the student changes his or her mind about a pathway or cluster, Career Pathways offers the flexibility for students to redirect their course of study.

Finally, within each section of this Course Description Guide, charts will specify which elective courses align to each of the four career pathways as aforementioned. Students and their families are encouraged to select courses that will help them with studies in that respective pathway. Look for the “Career Pathways” charts within each content area section of this book.

TRADITIONAL ACADEMIC PATHWAY

The Traditional Academic curriculum is designed for the student who wishes to pursue a career that requires four or more years of education at a college or university. Students who select the Traditional Academic curriculum should elect subjects necessary to satisfy college entrance requirements. The term “college” is used to include junior colleges, nursing schools, technical institutes, and other institutions of higher education.
Students who are planning to enter a four-year college or university must realize that entrance requirements as well as graduation requirements vary with each institution. It is important that college bound students begin to study college catalogs and consult with their counselors in the sophomore year. It is imperative that students continue their study of mathematics, science, and foreign languages to challenge the limits of their ability and not to meet the minimum requirements of any one college.

Every college admissions committee looks favorably upon the student who has studied in subjects beyond minimum requirements. Many colleges will exempt students from basic required courses when the high school records indicate advanced study, and the students indicate proficiency by special examination. In addition to wise course selection, high academic achievement is an essential requirement for college admission.

Criteria are listed as prerequisites for entrance to the most challenging courses. All students must meet established criteria for gifted/high potential, honors and advanced placement course offerings.

Course Selection for the Traditional Academic Pathway

Students who select the Traditional Academic pathway should choose courses according to the following schedule:

<table>
<thead>
<tr>
<th></th>
<th>9th Grade Trad. Acad.</th>
<th>10th Grade Trad. Acad.</th>
<th>11th Grade Trad. Acad.</th>
<th>12th Grade Trad. Acad.</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>1 credit</td>
<td>1 credit</td>
<td>1 credit</td>
<td>1 credit</td>
</tr>
<tr>
<td>Social Studies</td>
<td>1 credit</td>
<td>1 credit</td>
<td>1 credit</td>
<td>1 credit</td>
</tr>
<tr>
<td>Mathematics</td>
<td>1 credit</td>
<td>1 credit</td>
<td>Optional Math or other 1 credit elective</td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>1 credit</td>
<td>1 credit</td>
<td>Optional Science or other 1 credit elective</td>
<td></td>
</tr>
<tr>
<td>World Language or Elective #1</td>
<td>1 credit</td>
<td>1 credit</td>
<td>WL or other 1 credit elective</td>
<td>Optional WL or other 1 credit elective</td>
</tr>
<tr>
<td>Health/ Physical Education/ Driver Ed.</td>
<td>.25 credit</td>
<td>.5 credit for PE/Health &amp; Driver Edc.</td>
<td>.25 credit</td>
<td>.25 credit</td>
</tr>
<tr>
<td>Elective #2*</td>
<td>1 credit</td>
<td>1 credit</td>
<td>1 credit</td>
<td>1 credit</td>
</tr>
</tbody>
</table>

*One full year or two semester electives must be chosen.

TECHNICAL ACADEMIC PATHWAY

The Technical Academic curriculum is designed for the student who wishes to pursue a career that requires specialized career and technical training and a two-year technical or trade school. Students who wish to be prepared for a specific technical or occupational field, or who desire to pursue college or further post-secondary education are eligible to apply to the Lehigh Career and Technical Institute for admission to the program of their choice. Accepted students spend one-half of the educational day at the Lehigh Career and Technical Institute, the other half of the day is spent at Parkland High School where students fulfill most academic requirements. Since the time spent in attending required classes at the home school is primary, there is limited opportunity for elective subjects. Students must successfully complete all scheduled required subjects to qualify for graduation from Parkland High School.
Course Selection for the Technical Academic Pathway (LCTI)

Students who choose the Technical Academic pathway and plan to take a half-day program at LCTI should select courses according to the following schedule:

<table>
<thead>
<tr>
<th>Grade</th>
<th>9th Grade Technical Academic</th>
<th>10th Grade Technical Academic</th>
<th>11th Grade Technical Academic</th>
<th>12th Grade Technical Academic</th>
</tr>
</thead>
<tbody>
<tr>
<td>English+</td>
<td>1 credit</td>
<td>1 credit</td>
<td>1 credit</td>
<td>1 credit</td>
</tr>
<tr>
<td>Social Studies+</td>
<td>1 credit</td>
<td>1 credit (taken at LCTI)</td>
<td>1 credit</td>
<td>Optional Math or other 1 credit elective</td>
</tr>
<tr>
<td>Mathematics</td>
<td>1 credit</td>
<td>1 credit</td>
<td>1 credit</td>
<td>Optional Science or other 1 credit elective</td>
</tr>
<tr>
<td>Science</td>
<td>1 credit</td>
<td>1 credit</td>
<td>1 credit</td>
<td></td>
</tr>
<tr>
<td>Health/ PE/ Driver Ed.</td>
<td>.5 credit for PE/Health &amp; Driver Edc.</td>
<td>.5 credit at LCTI</td>
<td></td>
<td>.25 credit</td>
</tr>
<tr>
<td>Elective*</td>
<td><strong>2 C &amp; T credits</strong></td>
<td><strong>2.5 C &amp; T credits</strong></td>
<td></td>
<td><strong>3 C &amp; T credits</strong></td>
</tr>
<tr>
<td>Career and Technical**</td>
<td><strong>3 C &amp; T credits</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

+  Students who are enrolled in ½ day LCTI will have the opportunity to enroll in CEW classes in English and Social Studies. See descriptions of CEW classes in “Levels of Course Offerings” section found on pages 8-9.

* One full year or two semester electives must be chosen

** Variations will occur based on individual need.

FULL DAY LCTI OPTION

LCTI students have the option of attending LCTI for a full day, taking their academic courses in the new Academic Center. Their schedule will follow the format shown below:

<table>
<thead>
<tr>
<th>Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>Math 1.0 Credit</td>
<td>Math 1.0 Credit</td>
<td>Math or Science Elective, Dist. Learn., LCCC Course 1.0 Cr.</td>
</tr>
<tr>
<td>Science</td>
<td>Science 1.0 Credit</td>
<td>Science 1.0 Credit</td>
<td>Govt./Economics 1.0 Credit</td>
</tr>
<tr>
<td>English</td>
<td>English 2 1.0 Credit</td>
<td>English 3 1.0 Credit</td>
<td>English 4 1.0 Credit</td>
</tr>
<tr>
<td>US History</td>
<td>US History 2 1.0 Credit</td>
<td>World Cultured .5 Credit</td>
<td>Adv. CPR, First Aid .5 Credit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wellness/Fitness .5 Credit</td>
<td>Wellness/Fitness .5 Credit</td>
</tr>
<tr>
<td>Career &amp; Tech Ed.</td>
<td>Career &amp; Tech Ed 3.0 Credits</td>
<td>Career &amp; Tech Ed 3.0 Credits</td>
<td>Career &amp; Tech Ed. 3.0 Credit</td>
</tr>
<tr>
<td>Total</td>
<td>Total = 7.0 Credits</td>
<td>Total = 7.0 Credits</td>
<td>Total = 7.0 Credits</td>
</tr>
</tbody>
</table>

Total Credits Earned:
(LCTI Gr. 10–12) 21 + (9th Grade) 6.25 = 27.25 Credits (full day 9th grade at PHS)
28.00 Credits (if half day LCTI program in 9th gr.)
LEVELS OF COURSE OFFERINGS

Advanced Placement (AP)
AP courses are offered in the areas of English, social studies, science, mathematics, foreign languages, art, and music. AP courses are college-level courses that use the College Board’s suggested curricula to prepare students for the AP exams. Students understand from the beginning that success in a given AP course will require extra study time and effort. **Grades earned in AP courses are weighted and are weighted only after successfully completing the course.**

In addition, most AP courses have a summer assignment that students must complete by the first day of school.

**Resources:** Students are expected to be able to read and understand a college-level textbook. The textbooks used in the AP courses are also used by schools such as Georgetown and Princeton. Weekly reading assignments are lengthy (30 to 50 pages or more) and involved. This is not light reading. Outside reading is also college level. Student purchase of an AP test preparation book is also strongly recommended.

**Course Content:** The concepts to be mastered for the AP tests are spelled out clearly by The College Board and serve almost exclusively as the basis for the curricula. These standards reflect the content of most college courses; therefore, the AP class is essentially a college course. The curriculum is driven by the need to meet the AP test objectives. These objectives, and other information about AP courses, can be found at www.collegeboard.com.

**Assessments:** The majority of a student’s grade in an AP class will be based on unit tests and papers. Tests in AP classes are challenging. They will follow or mimic the format of the actual AP test. Therefore, they will consist of equal parts objective and subjective questions.

Honors
Honors courses are designed to offer a greater depth of instruction at an accelerated pace. Placement into honors courses is based on exceptional performance and achievement in previous courses. The teacher recommendation is one of the strongest and most reliable criteria for honors placement. It is also important to recognize that honors courses place higher demands on a student’s time. A demonstrated ability to work with a heavier academic workload is essential. Likewise, there is an increased demand for student participation in discussion and independent learning. **Grades earned in Honors courses are weighted and are weighted only after successfully completing the course.** In addition, many Honors level courses have a summer assignment that students must complete by the first day of school.

Gifted/High Potential (GHP)
The Parkland School District provides programs for its gifted/high potential students in the areas of English, social studies, math, and science. While the basic content of the regular program will be presented at each grade level, activities and methods are used that are intended to develop higher order thinking skills. This is brought about by the use of more advanced supplemental teaching materials and more advanced research methods. Students in these programs have the advantage of working with students of similar ability. Although the student may choose to build a program of courses at the College Preparatory level, it is recommended that consideration be given to one or more of the special programs that are available. Participation will usually demand more time and work than courses at the College Preparatory level, because these classes have been planned to provide the student with a challenge and with advanced academic skills. Weighted grades are not used in the evaluation of student progress in these courses.

College Preparatory (CP)
The College Preparatory curriculum is moderately paced and serves the student who requires the traditional academic preparation necessary for higher education. Students are required to analyze pieces of literature, use traditional research methods, make oral presentations, and write papers. It is designed to build skills and knowledge needed for students who plan to enroll in a four-year college or university.

Career, Education, & Work Readiness (CEW)
CEW courses are only available for students who are enrolled at LCTI. This level exists in our English and Social Studies course offerings and provide LCTI students with opportunities to develop the skills and competencies needed for success academically and also within their trade of study. Students will enrich their understanding of the skills needed for success with their LCTI labs through various content based
activities and assessments in English and social studies. Note that only students who attend LCTI may take CEW courses, though LCTI students may take other course levels as well.

Seminar
Seminar courses will be available for students in grades 9 and 10 in English and social studies only. These courses are designed to assist students with developing future goals as well as the skills necessary to be successful in either the study of trades (at LCTI) or at the College Preparatory level. Content based activities along with real-world applications will assist students with determining their future paths and career goals. By the end of 10th grade, students will either continue their studies in English and social studies at the College Preparatory level at PHS or at the CEW level if attending LCTI.

* PARKLAND HIGH SCHOOL GRADUATION REQUIREMENTS

COURSE REQUIREMENTS AND CREDIT DISTRIBUTION

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4.0</td>
</tr>
<tr>
<td>Social Studies</td>
<td>4.0</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>Science</td>
<td>3.0 +</td>
</tr>
<tr>
<td>Health/Phys. Ed/Driver’s Ed.</td>
<td>1.25</td>
</tr>
<tr>
<td>Career Explorations</td>
<td>.5</td>
</tr>
<tr>
<td>Electives</td>
<td>8.5 (some)</td>
</tr>
<tr>
<td>TOTAL CREDITS</td>
<td>24.25 (minimum)</td>
</tr>
</tbody>
</table>

* NOTE: Students successfully completing the LCTI full day academic program will satisfy Parkland’s academic graduation requirements.

Considerations:
- Students at PHS are required to schedule the following minimum number of credits per year:
  - 9th grade – 6.25 credits
  - 10th grade – 6.50 credits
  - 11th grade – 6.25 credits
  - 12th grade – 6.25 credits
- Total credits to be scheduled = 25.25 (assumes no failures or repeated courses)

Elective Areas:
- 8.5 credits required in electives in grades 9 – 12 distributed as follows:
  - 1.0 credit in Technology Applications
  - 3.0 credits in Arts and Humanities
  - 4.5 credits in open choice electives
- Note: Certain courses may count as a required course or an elective but may not count as both. (For example- Physics.)

Technology Applications (1.0 credit required)
- Par Key & Trumpet
- Technical Theatre
- Intro. to Mass Communication
- Video in the Digital Age
- Statistics AP, Statistics
- Game Development & Design
- Meteorology & Astronomy
- Geology of National/State Parks
- Physics
• Producing and Directing Film & Video
• Parkland Morning/Midday News
• Photography & Computer Art courses
• Piano courses
• Music Theory 1 & 2
• Music Production 1
• Music Listening and Lit. Honors
• Fashion & Wardrobe Construction

• Business, Computer, & Info. Tech Classes
• Fashion Design & Merchandising
• Creative Crafts
• Interior Design
• Technology and Engineering courses (including PLTW)
• LCTI Labs

Arts and Humanities (3.0 credits required. 1.0 credit required for LCTI students)
• Music
• Art
• World Languages
• Sign Language
• Family and Consumer Science
• ETAP
• Theater electives
• Broadcasting electives
• Writing electives
• Social Studies electives (Sociology, Psychology, etc.)

KEYSTONE EXAMS

The Keystone Exams are end-of-course assessments designed to evaluate proficiency in academic content. **Beginning with the class of 2022, students must demonstrate proficiency on the Algebra 1, Literature, and Biology Keystone Exams to graduate.** Students not demonstrating proficiency will be offered multiple opportunities to take the Keystones throughout their high school careers.

CAREER EXPLORATIONS

The purpose of the Career Explorations course is to teach students how to match personal needs and expectations with satisfying career options. Students will learn self-assessment skills, research major and career alternatives, and make decisions based upon sound factual information, utilizing a variety of resources. The course will also provide students with a 100% online learning experience. Students will complete an online course and a digital portfolio during this self-reflection of interests using tools designed in Career Cruising. Completion of this course will be determined when all online modules are complete. Upon the completion of the high school project, the student will receive .5 credit. The project does not factor into the student’s GPA or class rank.

OPPORTUNITIES TO EARN COLLEGE CREDITS WHILE IN HIGH SCHOOL

Parkland High School affords students the opportunity to get a head start on earning college credits while still in high school. Students can do this in a couple of ways:

1. Sign up for a dual enrollment course, which allows students to earn BOTH Parkland High School credit AND college credit while still in high school. This is only available with certain courses and is optional, not required.
2. Waiving junior and seniors years at PHS to attend LCCC full time.
3. Sign up for college courses during senior year. Senior students have the option of doing one of the following:
   a. Waive their senior year at PHS to attend LCCC full time during their senior year.
   b. Attend a local 4-year college/university on a part-time basis while also taking courses at PHS to fulfill graduation requirements.

The following sections provide more details about the opportunities that our students have to earn credits while still in high school.
DUAL ENROLLMENT

Parkland students have the opportunity to earn college credits for taking certain courses to fulfill Parkland’s graduation requirements. Credits earned can be applied to a degree from the colleges/universities with whom we have partnered and may also be considered for transfer to other institutions of higher learning. Most courses are taught at the high school by a Parkland teacher, though some are taught by a college professor on or off campus. Tuition fees vary by institution, and students and their families are responsible for all costs and any travel (for off campus offerings) associated with these courses. In addition, if a student is interested in transferring these credits to another institution of study, students and their families are responsible for contacting their schools of interest to determine whether or not credits will be accepted at these schools.

Parkland High School students have several options for taking Dual Enrollment courses. A variety of courses can be taken through Lehigh Carbon Community College (LCCC), including classes in visual arts, math, sign language, and criminal justice. In addition, students can take Dual Enrollment courses in Spanish, French, German, and Latin through Seton Hall University. Finally, students who are interested in visual & performing arts leadership and/or advanced math courses can elect to participate in a Dual Enrollment program through Penn State University. Note that Dual Enrollment is optional as students are not required to do this.

LCCC Dual Enrollment:

LCCC offers Dual Enrollment opportunities for students at Parkland High School in a variety of subject areas. As of 2018-2019, tuition for courses taught by PHS instructors was $90 per 3-credit course and $120 per 4-credit course. Tuition for courses taught by LCCC professors at PHS during the school day was $165 per 3-credit course plus the cost of the textbook(s), and these courses are denoted with an (*) next to the Parkland Course Title in the chart found in the chart below (but is subject to change). In addition to these courses, seniors may choose to take a Private Pilot Flight Theory course, denoted with (**). Seniors who choose this course will travel to LCCC’s Airport Site Campus, located at Lehigh Valley International Airport. Note that courses taught by LCCC professors generally require an enrollment of 15 or more students in order to run. All tuition rates are subject to change at any time as per LCCC.

Many of the LCCC Dual Enrollment courses are open to students in grades 9-12 who have elected to take one of these courses. The following courses will be offered (but are subject to change based on enrollment and/or availability of LCCC professors) for LCCC Dual Enrollment credit during the 2019-2020 school year:

<table>
<thead>
<tr>
<th>PHS Course #</th>
<th>Parkland Course Title</th>
<th>LCCC Course Title &amp; Number</th>
<th>Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>703</td>
<td>Drawing 1</td>
<td>ART 110 Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>704</td>
<td>Drawing 2</td>
<td>ART 210 Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>701</td>
<td>Painting 1</td>
<td>ART 115 Painting I</td>
<td>3</td>
</tr>
<tr>
<td>707</td>
<td>Photography 1</td>
<td>ART 120 Photography I</td>
<td>3</td>
</tr>
<tr>
<td>708</td>
<td>Photography 2</td>
<td>ART 220 Photography II</td>
<td>3</td>
</tr>
<tr>
<td>718</td>
<td>Jewelry &amp; Metals 1</td>
<td>ART 125 Jewelry &amp; Metalsmithing 1</td>
<td>3</td>
</tr>
<tr>
<td>716</td>
<td>Ceramics 1</td>
<td>ART 130 Ceramics I</td>
<td>3</td>
</tr>
<tr>
<td>516</td>
<td>Sign Language 1</td>
<td>ASL 101 American Sign Language I</td>
<td>3</td>
</tr>
<tr>
<td>526</td>
<td>Sign Language 2</td>
<td>ASL 105 American Sign Language II</td>
<td>3</td>
</tr>
<tr>
<td>536</td>
<td>Sign Language 3</td>
<td>ASL 106 American Sign Language III</td>
<td>3</td>
</tr>
<tr>
<td>343</td>
<td>AP Calculus, Level BC</td>
<td>MAT 196 Calculus &amp; Analytical Geometry II</td>
<td>4</td>
</tr>
<tr>
<td>344</td>
<td>Advanced Topics in Calculus</td>
<td>MAT 201 Calculus &amp; Analytical Geometry III</td>
<td>4</td>
</tr>
<tr>
<td>284</td>
<td>Intro to the Criminal Justice System *</td>
<td>CJA 101 (offered during periods 1 &amp; 2 for 2 days/wk. at PHS)</td>
<td>3</td>
</tr>
<tr>
<td>PHS Course #</td>
<td>Parkland Course Title</td>
<td>Seton Hall University Course Title &amp; Number</td>
<td>Cr</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------</td>
<td>------------------------------------------------------</td>
<td>----</td>
</tr>
<tr>
<td>544</td>
<td>Spanish 4</td>
<td>SPAN 1001: Elementary Spanish I</td>
<td>3</td>
</tr>
<tr>
<td>584</td>
<td>Spanish 4 Honors</td>
<td>SPAN 2001: Intermediate Spanish I</td>
<td>3</td>
</tr>
<tr>
<td>555</td>
<td>Spanish 5</td>
<td>SPAN 1002: Elementary Spanish II</td>
<td>3</td>
</tr>
<tr>
<td>541</td>
<td>French 4</td>
<td>FREN 1001: Elementary French I</td>
<td>3</td>
</tr>
<tr>
<td>581</td>
<td>French 4 Honors</td>
<td>FREN 2001: Intermediate French I</td>
<td>3</td>
</tr>
<tr>
<td>556</td>
<td>French 5</td>
<td>FREN 1002: Elementary French II</td>
<td>3</td>
</tr>
<tr>
<td>543</td>
<td>German 4</td>
<td>GERM 1001: Elementary German I</td>
<td>3</td>
</tr>
<tr>
<td>583</td>
<td>German 4 Honors</td>
<td>GERM 2001: Intermediate German I</td>
<td>3</td>
</tr>
<tr>
<td>552</td>
<td>German 5</td>
<td>GERM 1002: Elementary German II</td>
<td>3</td>
</tr>
<tr>
<td>553</td>
<td>German AP: Language &amp; Culture</td>
<td>GERM 2002: Intermediate German II</td>
<td>3</td>
</tr>
<tr>
<td>522</td>
<td>Latin 2</td>
<td>LATN 1001: Elementary Latin I</td>
<td>3</td>
</tr>
<tr>
<td>532</td>
<td>Latin 3</td>
<td>LATN 1002: Elementary Latin II</td>
<td>3</td>
</tr>
</tbody>
</table>

**Seton Hall University:**

Since 1978, Project Acceleration, a program within the College of Arts and Sciences at Seton Hall University (SHU), has allowed high school students in Pennsylvania, New Jersey, and New York to get a head start on their university careers. Over the course of their high school career, students can earn up to 22 credits from SHU for approved courses taken in their secondary schools. The college credits earned through Project Acceleration are accepted at more than 200 colleges and universities. There are currently 175 high schools offering Project Acceleration courses and approximately 3000 students participate each year. As of the 2018-2019 school year, tuition for Project Acceleration courses is $100 per credit hour, or $300 per 3-credit course. (Regular Seton Hall tuition is approximately $1,220 per credit hour.) **Note that all tuition rates are subject to change at any time as per Seton Hall University.** These courses are only available through our World Language Department and are noted within this section of the course book. Juniors and seniors may register while sophomores may do so with administrative approval.

The list below indicates the Parkland courses that are offered for Dual Enrollment that are available through SHU:

**WAIVER OF JUNIOR AND SENIOR YEAR TO ATTEND COLLEGE**

In partnership with Lehigh Carbon Community College (LCCC), juniors and seniors will have the opportunity to participate in this dual enrollment program. Students who are accepted will complete their junior and senior year courses at LCCC’s Main Campus in Schnecksville. Upon graduation, students will not only receive a Parkland diploma but also their Associate of Arts Degree in General Studies, which transfers to many four year colleges.
Some additional items of note with this program include:

- Students must complete an application to participate. Students’ academic records, standardized test scores (including proficiency on Keystone Exams), attendance history, discipline history, and letters of recommendation will be used to determine eligibility. This application will be available at the beginning of February 2019.
- Parents are responsible for the student’s travel to and from LCCC and for covering all costs associated with participation.
- The program’s costs include tuition and textbooks.
  - Tuition - $55 per credit, 60 credits = $3,300/student (Note that all tuition rates are subject to change at any time as per LCCC.)
  - Textbooks - $2000 per year for two years = $4,000/student
  - Transportation and lunch
- Students must maintain a 2.5 GPA to remain in this program

Students who are interested in this program may pick up an application in the main office in February 2019.

WAIVER OF SENIOR YEAR TO ATTEND COLLEGE

Seniors who wish to accelerate their admission to college may choose to waive their senior year to attend college on a full-time basis in lieu of attending Parkland High School. Students who are interested in this should discuss this with their guidance counselor during the course registration process in the spring of their junior year. Once certain about the desire to accelerate, students must:

1. Submit a letter to the high school principal that declares their interest in waiving their senior year and that they have been granted early admission. This letter should be submitted at least six months prior to the start of the fall semester of the student’s senior year.
2. Provide proof of acceptance for early admission to college, which must accompany the letter to the principal.

Any and all requests will be closely reviewed. Final approval is at the discretion of the high school principal. If approved, the student, his/her parent/guardian, and guidance counselor will sign a contract that will indicate the program of study that a student will follow at their respective college/university. Students will be responsible for ordering and sending transcripts to their high school guidance counselor. The high school diploma will be awarded upon successful completion of the freshman year of college. Transportation costs as well as tuition and other fees are the responsibility of the student and the student’s family. Seniors who opt to waive their senior year may participate in graduation ceremonies and in PHS extra-curricular activities, including athletics.

PART-TIME COLLEGE ENROLLMENT FOR SENIORS

Several local colleges and universities accept high achieving seniors on a part-time basis, affording them the opportunity to take college courses that are independent of their high school transcript and have no impact on the student’s eligibility for graduation from Parkland High School. It is a great opportunity for seniors to acclimate themselves to college level courses as they begin the transition from high school to college. Eligible seniors can take one or more college courses during their senior year while also taking courses at Parkland High School. Students have the option of splitting their day between the college/university campus and the high school.
school either in the morning or afternoon. Students may also take courses after school hours (i.e. after school, on weekends) if available.

Students who are interested in this should discuss this option with their guidance counselor during the course registration process in the spring of their junior year. Once certain about the desire to accelerate, students must:

1. Submit a letter to the high school principal that declares their interest in attending a college/university on a part time basis during their senior year. This letter should be submitted at least six months prior to the start of the fall semester of the student’s senior year.
2. Provide proof of acceptance for early admission to college, which must accompany the letter to the principal.

Any and all requests will be closely reviewed. Final approval is at the discretion of the high school principal. Students will be responsible for supplying their guidance counselor with transcripts in order to be able to attend a college/university on a part-time basis. Transportation costs as well as tuition and other fees are the responsibility of the student and the student’s family.

**INDEPENDENT STUDY**

Independent study programs are intended to supplement the curriculum already established by each of the major discipline areas at Parkland High School. An independent study is intended to encompass rigorous learning activities for students who have a strong desire to study a subject in depth. Students interested in securing an independent study must contact prospective teachers to collaborate on a proposed course outline including goals and objectives that must be accomplished by the end of the course. The independent study contract must also identify appropriate resource materials and define strategies by which the student can successfully master the stated objectives. The following guidelines must be followed when requesting independent study programs:

1. Independent study programs will not be approved for courses that are already offered in the master schedule.
2. Independent study programs will not be assigned a weighted grade unless the program being offered is an advanced placement or honors course not offered through the master schedule. Administrative approval is required for all independent study course requests.
3. Independent study program contracts must be completed prior to the start of the semester in which the course is being taught.
4. Only one independent study program will be approved for a student each semester.
5. Independent study programs do not replace selected courses on a student’s academic schedule. An independent study is considered an addition to the required courses needed for a complete academic schedule.

All independent study programs will operate under the supervision of a faculty member with prior written approval of the principal or counselor. Requests for independent study programs should be submitted to your school counselor during the regular registration period established for all course selections for the upcoming school year. Credit will be granted for the independent study program only if an approved contract is on file in the Counseling Office. Independent study program grades will be recorded each marking period and a final grade will appear on the student’s high school transcript.
SCHEDULE CHANGE POLICY

Students initially register for the following year’s courses during February of each year. Based upon course requests, administration builds a master schedule that reflects students’ interests and demands as well as teacher availability. Course sections and teacher assignments are made. Adjustments are made to reduce conflicts. The entire process takes several months with the objective of meeting every student’s course requests. Requests made prior to June 28th will be processed at the written request of the student and parent. Requests for schedule changes after that date will not be entertained until the beginning of the school year. Any errors, conflicts, omissions, or additions to a student’s schedule will be resolved as soon as possible. The following guidelines exist for all other schedule changes.

1. A schedule change request form must be completed by the student and parent. Forms are available in the Counseling Office and on the high school website.
2. Schedule changes will be considered for valid educational reasons only. Schedule changes will not be made to accommodate requests for lateral moves within the same subject area.
3. The counselor and assigned teacher will review schedule change requests.
4. **NEW FOR 2019-2020:** Full year courses will not be dropped after the first six days of class.
5. Semester courses will not be dropped after the first six days of class (unless a student is carrying an overload of seven academic courses).
6. **NOTE:** Requests to move up or down a level in a full year course after the first six days of the school year requires administrative approval. If approval is granted, grades earned in the previous course will be factored into the rating period grade in the new course. The transfer of grades will be proportional to the amount of time spent in the previous course and will include grades earned for summer assignment work/projects/assessments (if such existed in previous course).
7. Students moving from an Honors or Advanced Placement course to a GHP or CP level course will not be awarded a weighted grade. Students must successfully complete the entire Honors or AP course in order to receive a weighted grade.
8. Requests to change a level in a course will not be considered unless the student has a 75% or lower in the course.
9. Requests to move up to Honors/AP Courses must adhere to the following:
   a. Students must make up all of the work from the new Honors/AP class including the summer work (the work from GHP or CP does not take the place of the honors work). This work must be completed within 2 weeks of a student’s start date in an Honors/AP course.
   b. Moving up is not an option after the end of the fourth weekly cycle.

Withdrawals from a course will not become part of the student record if the course is dropped within the first six days of a full-year class and within the first six days of a semester class. A “W” (Withdraw) will be recorded after those days but prior to the end of the first quarter. Either a “WP” (Withdraw Passing) or “WF” (Withdraw Failing) will be recorded if the course is dropped after the first quarter, indicating the student’s progress at the time of withdrawal.

ACADEMIC YEAR

The Parkland High School academic year is divided into four rating periods. Report cards are issued at the end of each nine-week period. Parents may keep apprised of student grades through the Parent Viewer of the web-delivered Home Access Center.
**SUMMER SCHOOL**

Summer school is conducted for the purpose of allowing students to make up courses that they failed during the regular session. There are specific rules of eligibility, which are as follows: Students who fail a subject during the regular session may enroll for that course in summer school, if it is being offered. The right to do so is not automatically conferred. Administrative approval must be given before any student enrolls in summer school.

**SUMMER ENRICHMENT**

1. Students may take additional courses during the summer for the purpose of advancement and/or additional study through any of the following: a 2 or 4 year accredited college/university, an accredited online program, or through enrichment courses offered at PHS during the summer.
2. If interested, students must pick up a “Summer Courses for Enrichment” packet from Mrs. Bennick. This packet will be available by the beginning of February 2019.
3. If students are looking to take a math summer enrichment course at PHS, students must also pick up the “Summer Enrichment- Registration for PHS Courses” packet from Mrs. Bennick. This packet will be available by beginning of February 2019.
4. The “Request Form” to complete a summer enrichment course and the “Registration Form” for PHS math summer enrichment courses are due to Mrs. Bennick no later than Friday, April 19, 2019. Requests will not be considered after this date.
5. **Approval must be granted by Mrs. Bennick prior to enrolling in any summer enrichment course.**
6. When taking courses on PHS campus for summer enrichment: For students in grade 9-11 during the 2018-2019 school year, grades earned in summer enrichment courses on PHS campus will count towards graduation requirements and will appear on the official transcript. Final course grade will determine eligibility for advancement, which is explained in packet.
7. **When taking courses off campus for summer enrichment:** If the course is to be used to qualify a student for more advanced studies at Parkland, the student must take and pass Parkland’s comprehensive exam in that course. A cutoff score for advancement applies and is explained in the packet. Students must provide a transcript as proof of completion of this course, and the student’s course grade is considered when determining eligibility for advancement.
8. **Students and their families are responsible for all costs and materials required for these courses.**

**CLASS RANK**

Parkland High School does not publicly report class rank, and we will not recognize a valedictorian and salutatorian. Instead, the top 2 – 3% of the graduating class will be acknowledged during Commencement.
GRADING SYSTEM

Parkland High School uses a three-tiered grading system. This system awards students for taking the most rigorous courses. Shown below is the three-tiered quality point system:

Three-Tiered Quality Point System

<table>
<thead>
<tr>
<th>GRADE</th>
<th>NUMERIC RANGE</th>
<th>STANDARD GRADE POINTS</th>
<th>HONORS GRADE POINTS</th>
<th>AP GRADE POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>97 – 100</td>
<td>4.0</td>
<td>4.50</td>
<td>5.00</td>
</tr>
<tr>
<td>A</td>
<td>93 – 96</td>
<td>4.0</td>
<td>4.50</td>
<td>5.00</td>
</tr>
<tr>
<td>A-</td>
<td>90 – 92</td>
<td>3.67</td>
<td>4.17</td>
<td>4.67</td>
</tr>
<tr>
<td>B+</td>
<td>87 – 89</td>
<td>3.33</td>
<td>3.83</td>
<td>4.33</td>
</tr>
<tr>
<td>B</td>
<td>83 – 86</td>
<td>3.00</td>
<td>3.50</td>
<td>4.00</td>
</tr>
<tr>
<td>B-</td>
<td>80 – 82</td>
<td>2.67</td>
<td>3.17</td>
<td>3.67</td>
</tr>
<tr>
<td>C+</td>
<td>77 – 79</td>
<td>2.33</td>
<td>2.83</td>
<td>3.33</td>
</tr>
<tr>
<td>C</td>
<td>73 – 76</td>
<td>2.00</td>
<td>2.50</td>
<td>3.00</td>
</tr>
<tr>
<td>C-</td>
<td>70 – 72</td>
<td>1.67</td>
<td>2.17</td>
<td>2.67</td>
</tr>
<tr>
<td>D</td>
<td>60 - 69</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>F</td>
<td>0 - 59</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Students can learn more about the grading system through their guidance counselors.

HONOR ROLL

The Honor Roll will be published at the end of each quarterly marking period. This listing is made up of names of those students who achieve a quality-point average of 3.25 or higher, identifying them according to the following groupings:

Distinguished Principal’s List
4.00 +
No grade < 80 and No Incomplete

High Honors:
3.75 – 3.99+
No grade < 70 and No Incompletes

Honors:
3.25 – 3.74
No grade < 70 and No Incompletes
NCAA ELIGIBILITY

Students planning to participate in Division I or II college athletics must be aware of NCAA academic requirements. (Note that Division III colleges do not use the NCAA Eligibility Clearinghouse.) Students who plan to participate in sports in Division I or II programs must make sure that they are eligible to play. The rules and requirements of NCAA eligibility may be found at the Eligibility Center, www.eligibilitycenter.org. Please use the Eligibility Center and be sure to consult with your guidance counselor and/or Mr. Hulmes, PHS guidance counselor, to assist you with your NCAA related questions.

Below is a guide for students to review the NCAA eligibility process. As this is a guide, it is NOT a comprehensive description of the policies, procedures, or steps required to establish eligibility in the NCAA.

Guide for NCAA Eligibility Process:

1. Start planning by sophomore year. It is important that you work hard so that you can earn the best grades possible.
2. Take classes that match Parkland High School’s list of NCAA-approved courses (marked with an “*” within this Program of Studies). The NCAA Eligibility Center will only use approved courses to certify your initial eligibility. You can also access and print Parkland High School’s list of NCAA courses by going to www.eligibilitycenter.org, logging into the student portal, and when prompted, enter Parkland’s high school code: 393-125.
3. Juniors should register with the Eligibility Center and create an account.
4. Juniors registering for the SAT’s or ACT’s should also list the Eligibility Center as one of their intended recipients of the test scores by entering the code “9999.”
5. Juniors must also send the transcript to the Eligibility Center at the end of their junior year. Please note that juniors should request their transcript through Parchment, which is Parkland’s electronic delivery system. The link to Parchment can be found on the top of the PHS homepage.
6. Juniors should meet with their guidance counselors to review their courses, transcript, and eligibility requirements.
7. Seniors should continue to use their “My Planner” tool through the Eligibility Center in order to ensure that they are on track with credits, required documents, and eligibility.
8. Seniors must arrange to have their final transcripts sent to NCAA.

Helpful Links:

NCAA Eligibility Center:
www.eligibilitycenter.org


Guide for the College Bound Student Athlete:
NONDISCRIMINATION POLICY

Parkland School District is an equal opportunity educational institution and will not discriminate on the basis of race, religion, age, color, national origin, sex, handicap or limited English proficiency in its activities, programs or employment practices as required by Title VI, Title IX and Section 504. For information regarding civil rights or grievance procedures, contact Ms. Brenda DeRenzo, Director of Student Services at the Parkland School District Administration Building, 1210 Springhouse Road, Allentown, PA 18104 or call (610) 351-5505. For information regarding services, activities and facilities that are accessible to and usable by handicapped persons, also contact Ms. DeRenzo.

In compliance with state and federal law, the Parkland School District will provide to each protected handicapped student, without discrimination or cost to the student or family, those related aids, services or accommodations which are needed to provide equal opportunity to participate in and obtain the benefits of the school program and extracurricular activities to the maximum extent appropriate to the student’s abilities. In order to qualify as a protected handicapped student, the child must be of school age with a physical or mental disability which substantially limits or prohibits participation in or access to an aspect of the school program.

These services and protections for “protected handicapped students” are distinct from those applicable to all eligible or exceptional students enrolled (or seeking enrollment) in special education programs.

The Parkland School District, in conjunction with the Lehigh Career and Technical Institute, offers a variety of programs. Admission to these programs is available to all students. Criteria for admission are limited to academic aptitude and achievement, and available space.

NONBINDING NOTE

This booklet describes all courses contained in the Parkland High School program of studies; however, not all courses may be offered during one school term. The forms distributed at the time of registration will contain the official list of courses that are available for the coming school term. The school reserves the right to cancel or postpone courses for which insufficient enrollment, lack of physical facilities, or unavailability of teaching personnel necessitates such action.
Athletes please note: Only courses marked with an asterisk (*) are approved by the NCAA Clearinghouse.

THE 000 COURSES:
HEALTH AND FITNESS and DRIVER EDUCATION

The Health & Fitness program at Parkland High School provides a wide range of aerobic and anaerobic activities to enhance students’ personal fitness levels. Lifetime fitness is emphasized throughout the curriculum. Students also have the opportunity to develop skills and techniques in a variety of sport and physical activities. Health is offered in ninth through twelfth grades. The program offers a holistic approach to health. Current health information is disseminated to all students. Students will be able to make responsible health decisions to promote optimum health.

011 Physical Education/Health and Safety I
3 Dbl. Per./1 Semester .25 Credit Grade 9
As a result of participation in a variety of aerobic and anaerobic activities, students will realize an improvement in their personal fitness. Fitness testing techniques will also be discussed and practiced. In aquatics, students will realize an improvement in cardiovascular fitness as well as an improvement in muscular strength and endurance. The health education units will focus on substance abuse, fitness and nutrition, alcohol and tobacco. This is a required course for graduation.

021 Physical Education/Health and Safety II
3 Dbl. Per./1 Semester .25 Credit Grade 10
While maintaining a focus on personal fitness, students will have the opportunity to develop skills and techniques in a variety of sports and physical activities with the goal of adding variety and cross training to their personal fitness plans. General rules and basic game strategies will also be addressed as students participate in skill acquisition through drills and lead-up games. The health education units will focus on growth and development and disease management. This is a required course for graduation.

041 Physical Education/Health and Safety III
3 Dbl. Per/1 Semester .25 Credit Grade 11
043 Physical Education/Health and Safety IV
3 Dbl. Per/1 Semester .25 Credit Grade 12
Application of the skills and techniques gained in ninth and tenth grades to both individual and group lifetime fitness activities will be the focus of this course. Students will be offered the opportunity to participate in activities with a focus on application of skills within the framework of the rules and basic strategies of the game. Students will also realize affective benefits through their constant interaction and participation with peers. The health education units will focus on safety/first aid, mental health, consumer and environmental health and family relationships. Both 041 and 043 are required for graduation.

059 Healthy Weight Management
3 Dbl. Per Cycle/2 Semesters 1 Credit Grades 9, 10, 11, 12
Students who want to learn more about managing their fitness and nutrition habits will enjoy this course. Students who take this challenge should have a goal of learning how to manage a healthy body weight and fitness level as they transition from teen to adult lifestyles or losing weight to obtain a healthy BMI. Students will analyze their current eating and exercise habits, maintain regular food and exercise logs and have time each class period to engage in a variety of aerobic exercise, strength training and circuit training. Most importantly, this class will be offered when NO other physical education classes are active so that the student who is serious about his or her weight management can learn and exercise in a friendly environment. Students will receive physical education credit and therefore, will take this course instead of a regular phys. ed. class. Successful completion is required for repeat enrollment the following year.
026    Driver Education--Theory    4 pers., 6-day cycle./1 Semester    .25 Credit    Grade 10
This course, which is offered in the tenth grade and is a required course, emphasizes sound principles of highway safety, students’ responsibility in the operation of a motor vehicle, and shows students the effect of physical, mental, and emotional traits on safety. This course includes presentations and discussions on defensive driving, alcohol and drugs, traffic laws and enforcement, driving attitudes, automobile insurance, vehicle maintenance, driver fitness, pedestrian safety, and basic and advanced driving techniques.
Please Note: According to the PA Bureau of Licensing, a student must first complete the classroom theory class before a CLIU driving instructor may issue the actual Behind the Wheel (BTW) driver’s licensing test. We realize that some of our students engage in CLIU’s BTW program during the first semester and may not be scheduled for the classroom theory course until second semester. If this is the case, students may inform their BTW instructor at CLIU of this conflict, take the sixth BTW lesson with CLIU to receive the BTW certificate and take the driver’s test at the DMV with one of their driving examiners. The law maintains that a state examiner may issue the driver’s test to a student without the completion of the theory course, but a driver’s education instructor may not. CLIU also offers an online theory course for a fee. Students interested in taking their online course should inquire at CLIU.

ADDITIONAL COURSE OFFERINGS:
Please note that these courses are not core health & PE offerings and cannot be used to fulfill the 1.25 Health, Physical Education and Driver’s Edc. credits for graduation.

CAREER PATHWAYS:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credit</th>
<th>Grade Level(s)</th>
<th>B&amp;C</th>
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<th>A&amp;H</th>
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KEY:
B& C = Business and Communication Technology
Eng. & IT = Engineering and Industrial Technology
A & H = Arts and Humanities
H & HS = Health and Human Services

052    Lifeguarding    3 Dbl. Per./1 Semester    .5 Credit    Grades 10, 11, 12
Prerequisites: Students must be able to swim 500 yards using freestyle, side, back and breast strokes, and pass the 9th grade Aquatics component of PE 1.
In this advanced course, students will learn lifeguarding skills such as rescue techniques and strokes, boat and water safety, and water facility management. Successful completion of the course will result in First Aid, CPR, and Lifeguard certification. The student will pay for the certification, which is currently $37.00.

054    Strength Training    3 Dbl. Per/1 Semester    .5 Credit    Grades 11, 12
In this advanced course, students will learn principles of strength training such as flexibility training, muscular strength development, muscular endurance, overload principle, program development, and injury prevention. The focus will be based on correct technique, safety, self-paced training, and application of the strength-training principles. Students will be expected to demonstrate the knowledge gained in this course during daily training sessions.

055    Care and Prevention of Athletic Injuries, Pt. 1    3 Dbl. Pers./1 Semester    .5 Credit    Grades 10, 11, 12
Recommended Prerequisite: Successful completion of or concurrent enrollment in Biology.
This elective is designed for students who are interested in health and human services careers such as: physical therapy, occupational therapy, personal training, athletic training, nursing, medicine (MD or PA), and physical education. In addition, students who are presently working as student trainers or who are interested in becoming student trainers are strongly encouraged to take this course. Students will study general and athletic injuries and the care taken of these injuries. Diagnosis and evaluation of all injuries and the care required of those injuries will also be examined. This course is supplemented by guest speakers and hands-on, practical experiences relating to the treatment and prevention of injuries.
Care and Prevention of Athletic Injuries, Pt. 2
3 Dbl. Pers./1 Sem .5 Credit Grades 10, 11, 12
Prerequisite: Successful completion of Care and Prevention of Athletic Injuries, Pt. 1.
This course builds on the concepts taught in part 1 and provides students with a more in-depth experience, using labs and hands-on opportunities to explore different rehabilitation modalities and treatments. This elective is designed for students who are interested in health and human services careers such as: physical therapy, occupational therapy, personal training, athletic training, nursing, medicine (MD or PA), and physical education. Student trainers or those who are interested in serving as student trainers are strongly encouraged to take this course as well.

ADT PE
3 Dbl. Per./1 Semester .25 Credit Grades 9, 10, 11, 12
The adapted program in the Parkland School District contains a modified phase, which includes students who are unable to participate in regular physical education classes because of illness or injury and a remedial phase that includes students with conditions that may be improved or corrected through specific exercise programs. This program is available to all students in grades 7-12 on a permanent or temporary basis upon the recommendations of (1) school or family physician, (2) parents, (3) school. Students remain in the program only as long as they benefit from personalized instruction and have a physician’s recommendation.
THE 100 COURSES: ENGLISH

2019 – 2020 Projected ENGLISH/LANGUAGE ARTS Paths and Choices

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<td>(139) AP ENG: LANG &amp; COMP</td>
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<td>(131) ENGLISH 3 GHP</td>
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<td>(117) ENGLISH 1 SEMINAR**</td>
<td>(127) ENGLISH 2 SEMINAR***</td>
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*Students selecting this course must be enrolled in a career training program at LCTI.
**Students selecting this course must select AMERICAN STUDIES 1 SEMINAR for a social studies course.
***Students selecting this course must select AMERICAN STUDIES 2 SEMINAR for a social studies course.

Please Note:
1. Four years of high school ENGLISH and a minimum of four credits are required for graduation.
2. NCAA Clearinghouse Division 1 eligibility requires four English courses between 9th and 12th grades. Only courses marked with an asterisk (*) are approved by the NCAA Clearinghouse.
3. Students may change paths. Consult with your guidance counselor or the building principal.
4. Courses listed are based on curriculum and student projections. Actual course offerings are based on actual student requests.
5. This listing is based on the best information available at this time. It is not a guarantee of courses to be offered.
6. Course enrollment should be made on the basis of parent and student interest after evaluation of the individual academic abilities.

*110 English 1 Honors 2 Semesters 1 Credit Grade 9
Recommended Prerequisites: Based on standardized test results, previous performance, teacher evaluation, interest in and enthusiasm about the subject.
The 9th grade Honors English course focuses on literature and expository composition development based on literature, research skills, the grammar continuum, and SAT vocabulary study skills. To improve and refine higher critical thinking skills, students will read and discuss American literature through 1900. This course is designed to prepare students for both participation in the English Honors
program and eventually the Advanced Placement class. Independent reading assignments are part of the course requirements. Upon entering the English 1 Honors course, students should demonstrate exceptional skill in independent reading, writing, and study skills. Students should expect to master learning at an accelerated pace as well as produce additional projects and papers above and beyond that of the GHP level. Students will be expected to assume more responsibility for more independent learning and decision-making. In addition, students are expected to engage actively in classroom discussions and other means of oral presentation. *The course has a summer reading requirement.* Final grade of “B” assures placement in the next course. Grade weighted upon successful completion of course.

**111 English 1 GHP**  
2 Semesters  
1 Credit  
Grade 9  
The 9th grade Gifted/High Potential English program is designed to be more challenging than the College Preparatory program. The Gifted/High Potential program uses the College Preparatory program as a foundation; however the Gifted/High Potential program differs in content, resources, processes, activities, and products of the course. The Gifted/High Potential program focuses upon analysis, synthesis, and evaluation of content material. An increased rate of mastery of learning as well as additional amounts of work will be expected. Students will also be expected to assume more responsibility for more independent learning and decision-making. In addition, students are expected to engage in classroom discussions and other methods of oral presentation.

**112 English 1 CP**  
2 Semesters  
1 Credit  
Grade 9  
This course is centered on the study of literature, composition, grammar, and SAT vocabulary development skills. In order to develop an appreciation and understanding of the various types of American literature through 1900, this course will critique and analyze a range of genres, including short stories, novels, mythology, poetry, drama, and nonfiction. The content of the course is aligned to the PA Core Standards for English Language Arts. Composition focuses on the Keystone Literature constructed responses as well as the informative, persuasive, and narrative modes of writing.

**116 English 1 CEW**  
2 Semesters  
1 Credit  
Grade 9  
Prerequisite: Students who select this course must also be enrolled in the Lehigh Career & Technical Institute (LCTI). This course will combine traditional academic education with a concentration on career preparation. It will provide an opportunity for academic growth, specifically in the areas of reading comprehension, critiques, and analysis of common literary terms. In composition, the focus is on effective communication through various formats. Vocabulary and grammar are incorporated through the context of reading, writing, and career readiness terminology. At the same time, this course will also require students to explore and evaluate their potential career pathways as well as develop 21st century career readiness skills through daily class activities, self-assessment tools and career exploration opportunities integrated into the curriculum. If a student withdraws from LCTI, that student will also be withdrawn from this course and required to enroll in course English 1 Seminar (117) or English 1 CP (112).

**117 English 1 Seminar**  
2 Semesters  
1 Credit  
Grade 9  
This course follows an integrated format that aligns American Studies and English topics in a team-taught classroom environment as they prepare for post-secondary study, work, and life in the 21st Century. Both career and college preparatory standards will be emphasized. The English component will provide an opportunity for academic growth, specifically in the areas of reading comprehension, critiques, and analysis of common literary terms. In composition, the focus is on effective communication through various formats. Vocabulary and grammar are incorporated through the context of reading, writing, and career readiness terminology. The final purpose of this course is to expose students to the career opportunities available through Lehigh Career and Technical Institute (LCTI) through a series of presentations and career exploration activities. It will prompt students to analyze their own strengths, weaknesses, and desires to aid them make educated and realistic decisions about college and/or career choices. At the conclusion of this course, students will make a decision to pursue a college preparatory academic path in preparation for post-secondary education or to enroll at LCTI to pursue a career pathway through one of their technical and vocational programs. *Students who select this course must also select American Studies I Seminar (217) as their history course.*

**120 English 2 Honors**  
2 Semesters  
1 Credit  
Grade 10  
Prerequisite: English 1 Honors teacher recommendation. This in-depth course is a survey of American literature since 1900 and a study of literary form and style with a major emphasis placed on expository writing and vocabulary study. Participation in this course opens the way for the student to enter AP English: Lang. & Comp. and eventually into the twelfth-grade AP English: Lit. & Comp. Twelve writing assignments are part of the course requirements. A research paper is required in this course. *The course has a summer reading requirement.* Final grade of “B” or better provides automatic placement in the next course in the series. Grade weighted upon successful completion of course.
121 English 2 GHP
2 Semesters
1 Credit
Grade 10
Prerequisite: English 1 GHP teacher recommendation.
The content of this course is the same as that of the C.P. English course; however, activities and resources that require higher level thinking skills and some differentiated content are used to challenge the capabilities of these students. A research paper is required in this course. **Final grade of “C” or better provides automatic placement in next course in the series.**

122 English 2 CP
2 Semesters
1 Credit
Grade 10
Recommended Prerequisite: English 1 CP
The tenth-grade English program centers on literature, composition, grammar, speech, and vocabulary. In order to develop an appreciation and understanding of the various types of literature, the course focuses on American literature since 1900. Literature is the basis for composition. The program also reviews basic grammar, requires a speech, and presents vocabulary through a workbook series. A research paper is required in this course.

126 English 2 CEW
2 Semesters
1 Credit
Grade 10
Prerequisite: Students who select this course must also be enrolled in the Lehigh Career & Technical Institute (LCTI).
This course will combine traditional academic education with a concentration on career preparation. It will provide an opportunity for academic growth, specifically in the areas of reading comprehension, critiques, and analysis of common literary terms. In composition, the focus is on effective communication through various formats. Vocabulary and grammar are incorporated through the context of reading, writing, and career readiness terminology. At the same time, this course will also require students to explore and evaluate their potential career pathways as well as develop 21st century career readiness skills through daily class activities, self-assessment tools and career exploration opportunities integrated into the curriculum. **If a student withdraws from LCTI, that student will also be withdrawn from this course and required to enroll in course English 2 Seminar (127) or English 2 CP (122).**

127 English 2 Seminar
2 Semesters
1 Credit
Grade 10
This course follows an integrated format that aligns American Studies and English topics in a team-taught classroom environment as they prepare for post-secondary study, work, and life in the 21st Century. Both career and college preparatory standards will be emphasized. The English component of this class will provide an opportunity for academic growth, specifically in the areas of reading comprehension, critiques, and analysis of common literary terms. In composition, the focus is on effective communication through various formats. Vocabulary and grammar are incorporated through the context of reading, writing, and career readiness terminology. The final purpose of this course is to expose students to the career opportunities available through Lehigh Career and Technical Institute (LCTI) through a series of presentations and career exploration activities. It will prompt students to analyze their own strengths, weaknesses, and desires to aid them make educated and realistic decisions about college and/or career choices. At the conclusion of this course, students will make a decision to pursue a college preparatory academic path in preparation for post-secondary education or to enroll at LCTI to pursue a career pathway through one of their technical and vocational programs. **Students who select this course must also select American History II Seminar, # 227 as their history course.**

139 AP English: Language & Composition
2 Semesters
1 Credit
Grade 11
Prerequisite: English 2 Honors teacher recommendation.
Students who enroll in AP English: Language & Composition must be eager to learn about the complexities of the English language. While students will examine some major works of fiction including novels, dramas, and poetry, this college-level course focuses more on nonfiction texts and the rhetorical techniques used by writers. It is a skills-based course that trains students to become critical readers and to become proficient writers of expository, analytical, and argumentative essays. Note that this course is designed to prepare students for the AP exam in May and is intended to be a substitute for college freshman English. The class also includes components of SAT preparation and vocabulary development. **The course has a summer reading requirement. Final grade of “B” or better provides automatic placement in the next course in the series. Grade weighted upon successful completion of course.**

131 English 3 GHP
2 Semesters
1 Credit
Grade 11
Prerequisite: English 2 GHP teacher recommendation.
The content of this course is the same as that of the CP English course. However, activities and resources that require higher level thinking skills and some differentiated content are used to challenge the capabilities of these students. **Final grade of “C” or better provides automatic placement in next course in the series.**
*132  English 3 CP 2 Semesters 1 Credit Grade 11
Recommended Prerequisite: English 2 CP
This is a survey of British and World literature for college preparatory students. A major emphasis is placed on theme writing, and this emphasis is supplemented with a term paper. The purpose of this course is to teach students to express themselves clearly and logically both in class discussion and in written assignments. The course includes a systematic study of vocabulary and stresses a review of grammar fundamentals in areas where weaknesses are most apparent in relation to written work. The student must complete a research paper on a contemporary issue or a topic related to British literature.

136  English 3 CEW 2 Semesters 1 Credit Grade 11
The teaching of English on this level must be as personalized as possible because of the varied interest levels of the students and the wide range of their abilities. Because of these varied levels, reading for understanding and information will be stressed. This course will combine traditional academic education with a concentration on career preparation, focusing closely on writing effectiveness, reading comprehension, and connecting course content to the work world in such concepts of teamwork, reliability, leadership, and responsibility. Vocabulary and real world skills are incorporated through the contexts of reading, writing, and career readiness terminology. At the same time, this course will also require students to explore and evaluate their potential career pathways as well as develop 21st century career readiness skills through daily class activities, self-assessment tools and career exploration opportunities integrated into the curriculum, mainly via career cruising and fiction and non-fiction reading content. If a student withdraws from LCTI, that student will also be withdrawn from this course and required to enroll in course English 3 CP (132).

*140  AP English: Literature & Composition 2 Semesters 1 Credit Grade 12
Prerequisites: Successful completion of AP English: Language & Composition and teacher recommendation.
This course will analyze literature from the point of view of the writer as well as the reader to determine how literature affects its readers and in what ways. Students will “measure” literature against the history of philosophy to understand how literature fits into its own time as well as in all time. Students will ask, “What is art?” and try to determine the qualities of great literature. Through literary analysis students will examine style, structure, diction, imagery, use of detail, language and syntax. Utilizing vocabulary study to write about literature is an important component of the course. The course has a summer reading requirement. Grade weighted upon successful completion of course.

*141  English 4 GHP 2 Semesters 1 Credit Grade 12
Prerequisite: English 3 GHP teacher recommendation.
The content of this course is the same as that of the C.P. English course. However, activities and resources that require higher level thinking skills and some differentiated content are used to challenge the capabilities of these students.

*142  English 4 CP 2 Semesters 1 Credit Grade 12
Prerequisite: English 3
The focus of this course is a survey of modern World Literature with emphasis placed on literary analysis and personal reflection. Students will continue to develop their skills in reading, vocabulary, writing, research and discussion.

146  English 4 CEW 2 Semesters 1 Credit Grade 12
Prerequisite: English 3
The content in this course is structured on career preparation focusing on comprehension and communication skills. Professionalism, teamwork, reliability, leadership, and responsibility are stressed in all aspects of the course. A professional portfolio is finalized in this course to prepare for employment and/or technical school. This course will combine traditional academic education with a concentration on career readiness. Course units focus on vocabulary development, reading comprehension (fictional and non-fictional texts), writing effectiveness, and verbal communication skills. If a student withdraws from LCTI, that student will also be withdrawn from this course and required to enroll in course English 4 CP (142).
ADDITIONAL COURSE OFFERINGS:
Please note that these courses are not core English offerings and cannot be used to fulfill the 4.0 English credits for graduation.

CAREER PATHWAYS:

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**KEY:**
B & C = Business and Communication Technology
Eng. & IT = Engineering and Industrial Technology
A & H = Arts and Humanities
H & HS = Health and Human Services

174  Greek and Roman Mythology  1 Semester  .5 Credit  Grades 9, 10
The purpose of the course is to acquaint the student with a basic understanding of Greek and Roman mythology. The focus will be on reading the myths and legends themselves, as related by ancient authors and/or summarized by the course text. A variety of motifs will be identified.

176  Sports in Literature  1 Semester  .5 Credit  Grades 9, 10, 11, 12
The course brings a new category of American Literature to life through the dramatic and personal aspects of sports. It includes a variety of genres for anyone interested in sports, including novels, stories, essays, poetry, and biographies. Students will understand that sports are not just contests, but a metaphor for the human experience.
150 Women Writers  1 Semester  .5 Credit  Grades 9, 10, 11, 12
Have you ever wondered what it is like inside a woman's mind? This is your chance to get an inside look at what women think through examining what women write. In this course, we will examine modern works of fiction, several historical pieces, and several short films, all authored by a diverse selection of women. The course is arranged thematically around the issues women writers address most frequently: love, marriage, wealth, the "American Dream," coming of age, motherhood, family relationships, and mental health. We'll also take a brief look at a few female characters written and developed by male authors, so you can see the difference gender makes in the development of literature. Lastly, this course will give you a chance to develop your own unique voice as a writer as you author several of your own creative pieces.

151 Par Key/Yearbook  2 Semesters  1 Credit  Grades 9, 10, 11, 12
Recommended Prerequisites: Interest in yearbook activities
Highly motivated students who have sophisticated writing skills are encouraged to sign up for Par Key. In addition to writing, students will learn yearbook design and online yearbook production, Photoshop. The course provides the staff with in-school time to work; however, students will be required to meet before or after school as necessary to meet production deadlines and cover Parkland High School events. Seniors may take this course only if they have been on the yearbook staff previously.

152 Trumpet/Newspaper  2 Semesters  1 Credit  Grades 10, 11, 12
Recommended Prerequisite: Journalism elective with English teacher recommendation and writing sample.
This class will learn the reporting, writing, business, and computerized production skills necessary to publish the school newspaper. The staff will meet every day and contribute after school as necessary during deadline weeks. Seniors who have been members of the Trumpet staff previously may take the course only with the permission of the advisor.

154 Public Speaking  1 Semester  .5 Credit  Grades 9, 10, 11, 12
This course is designed for those who want to improve their public speaking skills and to become more effective communicators. Students will present a series of informal and formal speeches utilizing the various modes of speech. The activities are designed for students to acquire competence in two-person, small group, and public situations.

156 Theatre Arts 1: Introduction to Theatre  1 Semester  .5 Credit  Grades 9, 10, 11, 12
This course is designed as an introduction to the fundamentals of theatre, including the history of theatre, the language of theatre and basic stage direction. The course focuses on multiple performance styles including pantomime and improvisation, dramatic structure, individual and group performances.

157 Theatre Arts 2A: Survey of Musical Theatre  1 Semester  .5 Credit  Grades 10, 11, 12
Prerequisite: Satisfactory completion of Theatre Arts 1 or equivalent in experience and departmental recommendation.
This is an introductory course in musical theatre that focuses on production, performance, musical theatre literature and history. Students will examine the history and evolution of the Broadway musical, one of America’s great indigenous art forms. Students will also compare and evaluate a variety of musicals from the nineteenth century to present day including: Vaudeville, Operetta, Musical Comedy, Opera on Broadway, and Rock Opera. Major figures discussed will include composers, lyricists, producers, directors, choreographers, performers, and conductors. This course also focuses on developing singing/acting/movement skills in a variety of musical theatre performing styles. Note that students can elect to take Theatre Arts 2A or 2B or both in one school year if their schedule permits. Only one course, 2A or 2B, is needed to advance to Theatre Arts 3.

155 Theatre Arts 2B: Introduction to Acting  1 Semester  .5 Credit  Grades 10, 11, 12
Prerequisite: Satisfactory completion of Theatre Arts 1 or equivalent in experience and departmental recommendation.
This course is designed to provide further studies to the fundamentals of acting. Students will learn various styles, techniques, and approaches to acting as well as script analysis. Areas of study include improvisation, voice and diction, oral interpretation, scene and monologue work. This class is designed for those students who have a strong love and interest in theatre.
158  Theatre Arts 3: Advanced Theatre Arts  
2 Semesters  1 Credit  
Grades 11, 12 
Prerequisite: Satisfactory completion of Theatre Arts 2A and/or 2B. 
Students will enhance their performance skills as well as increase their knowledge of the world and history of the theatre. The course examines periods and styles of drama, and cultivates this research into a living work of art. Other areas of study include modern dramas, directing, producing, costuming, mask work, and advanced monologue and scene work.

159  Theatre Arts 4: Acting Studio and Workshop  
2 Semesters  1 Credit  
Grade 12 
Prerequisite: Satisfactory completion of Theatre Arts 3. 
This course is designed for students who wish to investigate possible career options and/or post-secondary study in the performing arts, including all areas of acting, producing, marketing, advertising, casting, development, and administration. Through individual meetings, we will best determine each individual’s academic and artistic goals. Students will work on quarterly and yearlong projects. The group will explore individual and ensemble devised works.

180  Technical Theatre  
1 Semester  .5 Credit  
Grades 9, 10, 11, 12 
The course will explore all design and construction aspects of the modern theatre. It will integrate the technical components of theatre with the artistic, including scenic design, style and composition, lighting and sound. Students will be assessed using traditional quizzes, tests and essays, along with production projects. A highly interactive, engaging course, class participation and teamwork are mandatory.

181  Advanced Stage Lighting and Sound Design  
1 Semester  .5 Credit  
Grades 9, 10, 11, 12 
Prerequisite: Technical Theatre 
This second course will advance concepts learned in the theory and application of light and sound design. Students enrolled in this semester-long course will work directly with the equipment that will be used in a real production of technical theatre. Students will create projects, essays, and practical theatre designs. Students will read new and modern plays as well as some classics and create sound and lighting design projects that could be implemented in a production.

167  Creative Writing 1  
1 Semester  .5 Credit  
Grades 9, 10, 11, 12 
Creative Writing offers students opportunities to express themselves in a creative and original manner. During the semester the class examines representative works by various authors of different genres. After studying components of each genre, students, through a sequence of pre-writing, drafting, revising, and peer-editing, produce their own poems, essays, a short story, and a children’s book.

168  Creative Writing 2  
1 Semester  .5 Credit  
Grades 10, 11, 12 
Prerequisite: Creative Writing 1 
Creative Writing 2 is an advanced course for students who have completed Creative Writing 1 and wish to further develop their writing abilities.

161  Journalism  
1 Semester  .5 Credit  
Grades 9, 10, 11, 12 
This elective will emphasize interviewing, reporting, and writing for publication. It will also stress newspaper and magazine production skills. After introductory training in journalistic writing style, students will write news stories, features, sports stories, and editorials. Each student will attempt to have at least one article printed in the school newspaper, yearbook, or in another publication.

162  Introduction to Mass Communication  
1 Semester  .5 Credit  
Grades 9, 10, 11, 12 
From the basic concepts of broadcast TV, video, and film production, to the science behind effective communication skills, this class gets students started in the world of communication. This hybrid, hands-on theory course allows students to develop the interpersonal communication skills needed in today’s corporate world as well as to gain invaluable technical skills using their own devices and basic studio equipment.
163 Video in the Digital Age

1 Semester .5 Credit Grades 9, 10, 11, 12

Prerequisite: Introduction to Mass Communication

This course explores the creative development of video concepts and introduces students to basic production techniques as they relate to the development of video geared for the internet, streaming services and television distribution. This course is production-oriented, implementing the knowledge and skills learned from Intro to Mass Communication. Students will be taught camera skills, production structure, and editing techniques to produce projects in a collaborative environment.

164 Producing and Directing Film and Video

1 Semester .5 Credit Grades 10, 11, 12

Prerequisites: Introduction to Mass Communication (formerly Broadcasting I) or the equivalent in experience as evidenced by evaluation of a demo reel and/or demonstration of practical knowledge of film/video technique and equipment.

From basic cinematography, to set lighting, lens choices, camera choices, and so many other cinematic concepts, Producing and Directing Film and Video serves as an introductory level film school course. Students will study action, thrillers, epics, and dramas by watching and reacting to the content of films and by examining the theories and intentions of the directors. Using these foundational skills, students will then become members of film and video crews where they will write, direct, and produce original short films. They will also experience filming from other perspectives, including acting, creating sets, and organizing props for production. Students looking to enroll in this course should be comfortable with computer and video technology and should also have a strong foundation in writing. By taking this course, students will have the opportunity to submit works into local and regional film festivals where they compete for various recognitions.

165 Parkland Morning News

2 Semesters 1 Credit Grades 10, 11, 12

Prerequisite: Successful completion of one of the following courses: Intro. to Mass Communication (162), Video in the Digital Age (163), Producing and Directing Film and Video (164), or at the discretion of the instructor with a video demo reel.

Admission to class by invitation only.

This course is designed for those motivated students who wish to pursue college level independent broadcasting study. It emphasizes the basic skills of reporting, camera work, scriptwriting, and editing under the time restrictions of a daily news program. Students are expected to put in substantial time during and after class. Students selected for this class must have extensive knowledge of computers, audio/video equipment, and lighting and sound techniques. This class meets during “0” period before school. Students must provide their own transportation to school.

160 Parkland Midday News

2 Semesters 1 Credit Grades 10, 11, 12

Prerequisite: Successful completion of one of the following courses: Intro. to Mass Communication (162), Video in the Digital Age (163), Producing and Directing Film and Video (164), or at the discretion of the instructor with a video demo reel.

Admission to class by invitation only.

This course is a student-run program which requires students to plan, write, and produce the afternoon announcements. All students will be required to operate all of the equipment in the television studio. This includes, but is not limited to, studio cameras, switcher, audio mixer, teleprompter, video router, and lights. Students will have 44 minutes to create a performance that is aired over the closed circuit system at PHS.
### THE 200 COURSES: SOCIAL STUDIES

#### 2019 – 2020 Projected Social Studies Paths and Choices & Course Numbers

<table>
<thead>
<tr>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
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<tbody>
<tr>
<td>(210) AMERICAN STUDIES 1 HONORS</td>
<td>(220) AMERICAN STUDIES 2 HONORS</td>
<td>(234) AP WORLD HISTORY (Full Year)</td>
<td>(240) ECONOMICS AP (Full Year) and either</td>
</tr>
<tr>
<td>or</td>
<td>(224) AP US HISTORY</td>
<td>or</td>
<td>(270) US GOVT &amp; POLITICS AP (Full Year) or</td>
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<td>(211) AMERICAN STUDIES 1 GHP</td>
<td>(221) AMERICAN STUDIES 2 GHP</td>
<td>(231) WORLD STUDIES GHP</td>
<td>(241) GHP ECONOMICS (Semester) and</td>
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<tr>
<td>or</td>
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<td>(232) WORLD STUDIES CP</td>
<td>(271) AMERICAN GOVERNMENT GHP (Semester)</td>
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<tr>
<td>(212) AMERICAN STUDIES 1 CP</td>
<td>(222) AMERICAN STUDIES 2 CP</td>
<td>(232) WORLD STUDIES CP</td>
<td>(242) ECONOMICS CP (Semester) and</td>
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<tr>
<td>(216) AMERICAN STUDIES 1 CEW* or (217) AMERICAN STUDIES 1 SEMINAR**</td>
<td>(226) AMERICAN STUDIES 2 CEW* or (227) AMERICAN STUDIES 2 SEMINAR ***</td>
<td>(236) WORLD STUDIES CEW*</td>
<td>(276) AMERICAN GOVERNMENT CEW* (Semester) and</td>
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<td>OR</td>
<td>OR</td>
<td></td>
<td>(246) ECONOMICS CEW* (Semester)</td>
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</table>

*Students selecting this course must be enrolled in a career training program at LCTI. However, please note that LCTI students may enroll in CP or higher level courses if interested, eligible, and if it works in their schedule.

**Students selecting this course must select ENGLISH 1 SEMINAR for a social studies course.

***Students selecting this course must select ENGLISH 2 SEMINAR for a social studies course.

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**Please note:**

1. Four credits of high school SOCIAL STUDIES are required for graduation. In addition, all students MUST take one course in Government AND one in Economics to fulfill graduation requirements.
2. NCAA Clearinghouse Division I eligibility requires social studies courses between 9th and 12th grades. *Only courses marked with an asterisk (*) are approved by the NCAA Clearinghouse.*
3. Students may change paths. Consult with your guidance counselor or assistant principal.
4. Courses listed are based on curriculum and student projections. Actual course offerings are based on actual student requests.
5. This listing is based on the best information available at this time. It is not a guarantee of courses to be offered.
6. Course selection should be made on the basis of parent and student interest after evaluation of one’s academic abilities.
*210  American Studies 1 Honors  2 Semesters  1 Credit  Grade 9

Recommended Prerequisites: Based on standardized test results, previous performance, teacher evaluation, interest in and enthusiasm about the subject.

This course is a study of American history from the Age of Exploration through the end of the 19th century. In addition to the GHP curriculum requirements, the Honors American Studies Program will emphasize development of inductive and deductive reasoning, reading and evaluating primary source material and a comparative analysis of historical novels. Students will read at least 2 historical novels. Students will also be required to write a 6 – 8 page research paper. Note that this course has a summer reading and writing requirement. Grade weighted upon successful completion of course. Final grade of “B” assures placement in the next course.

*211  American Studies 1 GHP  2 Semesters  1 Credit  Grade 9

This course is a study of American history from the Age of Exploration to the end of the 19th century. The Gifted/High Potential level includes the political, economic, geographical, and institutional viewpoints of historical events. This course has been designed for students who have a strong interest in history and have demonstrated outstanding achievement. Students will be required to demonstrate higher levels of thinking. This may be achieved through the use of historical simulations, classroom debates, the reading of two historical novels, and the reading of literature from the time period in American history. A greater emphasis will be placed on the requirement for these students to express themselves through writing and classroom discussions relating to the topics being studied. A 3 – 5 page research paper is also required.

*212  American Studies 1 CP  2 Semesters  1 Credit  Grade 9

This course is a study of American history from the Age of Exploration to the end of the 19th century. The college preparatory course includes the political, economic, geographical, and institutional viewpoints of historical events. There is an effort to relate past events to current trends in America, and to enable the student to understand how current trends and reoccurring problems have developed throughout America’s history.

216  American Studies 1 CEW  2 Semesters  1 Credit  Grade 9

Prerequisite: Students who select this course must be enrolled in Lehigh Career & Technical Institute (LCTI).

This course will combine traditional academic education with a concentration on career preparation. The academic focus is a study of American history from the Age of Exploration to the end of the 19th Century that allows students to survey this period of American history in an attempt for them to gain a better understanding of the story of our nation. At the same time, this course will also require students to explore and evaluate their potential career pathways as well as develop 21st century career readiness skills through daily class activities, self-assessment tools and career exploration opportunities integrated into the curriculum. If a student withdraws from LCTI, that student will also be withdrawn from this course and required to enroll in course American Studies 1 Seminar (217) or American Studies 1 CP (212).

217  American Studies 1 Seminar  2 Semesters  1 Credit  Grade 9

This course follows an integrated format that aligns American Studies and English topics in a team-taught classroom environment as they prepare for post-secondary study, work, and life in the 21st Century. Both career and college preparatory standards will be emphasized. The American Studies component is a study of American history from the Age of Exploration to the end of the 19th Century that allows students to survey this period of American history in an attempt for them to gain a better understanding of the story of our nation. Both historical texts and literature will be integrated to achieve these goals. The final purpose of this course is to expose students to the career opportunities available through Lehigh Career and Technical Institute (LCTI) through a series of presentations and career exploration activities. It will prompt students to analyze their own strengths, weaknesses, and desires to aid them make educated and realistic decisions about college and/or career choices. At the conclusion of this course, students will make a decision to pursue a college preparatory academic path in preparation for post-secondary education or to enroll at LCTI to pursue a career pathway through one of their technical and vocational programs. Students who select this course must also select English 1 Seminar (117) as their English course.

*224  United States History AP  2 Semesters  1 Credit  Grades 10, 11, 12

Recommended Prerequisite: Honors American Studies 1

This course is designed to provide students with the analytical skills and factual knowledge necessary to deal critically with the problems and materials of US history. The course prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students learn to assess historical material, their relevance to a given interpretive problem, their reliability, and their importance, and to weigh the evidence and interpretations presented in historical scholarship. Students can expect to participate fully in classroom discussions, written assignments, projects and research. The course has a summer reading requirement. Grade weighted upon successful completion of course.
The course, the second of a two-year sequence, focuses on 20th century and recent American history. It will be built on the skills introduced in Honors American Studies 1 as well as emphasize an analytical approach to history. Students will be expected to investigate issues in history, write and argue from a point of view, work extensively with primary sources as well as produce individual research projects. *The course has a summer reading requirement.* Grade weighted upon successful completion of course. Final grade of “B” assures placement in the next course.

**Recommended Prerequisites: Honors or GHP American Studies 1 teacher recommendation.**

This course, the second of a two year American Studies sequence, begins with the 20th century America and proceeds to the present day. Students study the nation’s transformation into an industrial power and the impact of this change on the social, cultural, economic and political development of the country. The course also traces the foreign policy of the United States from isolationism to internationalism.

**Prerequisite: Students who select this course must be enrolled in Lehigh Career & Technical Institute (LCTI).**

This course will combine traditional academic education with a concentration on career preparation. The academic focus covers the historic period between 1877 and the present and allows students to survey this period of American history in an attempt for them to gain a better understanding of the story of our nation. At the same time, this course will also require students to explore and evaluate their potential career pathways as well as develop 21st century career readiness skills through daily class activities, self-assessment tools and career exploration opportunities integrated into the curriculum. *If a student withdraws from LCTI, that student will also be withdrawn from this course and required to enroll in course American Studies 2 Seminar (227) or American Studies 2 CP (222).*

**Recommended Prerequisites: CP American Studies 1**

This course follows an integrated format that aligns American Studies and English topics in a team-taught classroom environment as they prepare for post-secondary study, work, and life in the 21st Century. Both career and college preparatory standards will be emphasized. The American Studies component of this course covers the historic period between 1877 and the present and allows students to survey this period of American history in an attempt for them to gain a better understanding of the story of our nation. Both historical texts and literature will be integrated to achieve these goals. The final purpose of this course is to expose students to the career opportunities available through Lehigh Career and Technical Institute (LCTI) through a series of presentations and career exploration activities. It will prompt students to analyze their own strengths, weaknesses, and desires to aid them make educated and realistic decisions about college and/or career choices. At the conclusion of this course, students will make a decision to pursue a college preparatory academic path in preparation for post-secondary education or to enroll at LCTI to pursue a career pathway through one of their technical and vocational programs. *Students who select this course must also select English 2 Seminar (227) as their English course.*

**Recommended Prerequisite: Tenth grade Honors, AP -or GHP American Studies teacher recommendation.**

World History AP emphasizes non-western history from 1200 C. E. to the present, relying on college-level texts, primary and secondary sources, analytical and writing skills. Political, social, economic, and religious developments will be covered. Attention will be given to prepare students for the World History AP exam. *The course has a summer reading requirement.* Grade weighted upon successful completion of course. Also, for students who cannot schedule this course during the day, an online option is available. *Students must speak to their guidance counselors about this.*
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Grade Level</th>
<th>Prerequisites</th>
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<tr>
<td><strong>231</strong></td>
<td>World Studies GHP</td>
<td>1 Credit</td>
<td>Grade 11</td>
<td>Honors or GHP American Studies 2 teacher recommendation.</td>
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<td><strong>232</strong></td>
<td>World Studies CP</td>
<td>1 Credit</td>
<td>Grade 11</td>
<td>American Studies 2</td>
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<td><strong>236</strong></td>
<td>World Studies CEW</td>
<td>1 Credit</td>
<td>Grade 11</td>
<td>American Studies 2</td>
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<td><strong>240</strong></td>
<td>Economics AP</td>
<td>1 Credit</td>
<td>Grade 12</td>
<td>Teacher recommendation.</td>
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<tr>
<td><strong>241</strong></td>
<td>Economics GHP</td>
<td>.5 Credit</td>
<td>Grade 12</td>
<td></td>
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<tr>
<td><strong>242</strong></td>
<td>Economics CP</td>
<td>.5 Credit</td>
<td>Grade 12</td>
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</table>
Economics CEW explores the subject of economics from the practical perspective of the student as a consumer and producer. Specific topics include consumer and career decision-making, taxes, personal saving, investing and budgeting, and the consequences of living and working in a global economy. Assessments will consist of problem-solving projects that simulate real-world consumer and labor issues. Students who select this course must be enrolled in Lehigh Career & Technical Institute. If a student withdraws from LCTI, they will also be withdrawn from this course and required to enroll in course Economics CP (242).

*274 Comparative Government and Politics AP

Prerequisite: Teacher Recommendation

Through work in a college level text and regular consideration of current media, this course exposes students to the current political systems in six core countries – Britain, China, Iran, Mexico, Nigeria, and Russia – and, provides the content for conceptual and thematic analysis. Students will consider the history of these nations as well as culture, social divisions, and formal structures of government. The course places emphasis on themes such as globalization, democratization, political change, public policy, and citizen-state relations. This course satisfies the Government requirement for graduation. The student must schedule an Economics course to complete the Social Studies requirement for graduation. The course has a summer reading requirement. Grade weighted upon successful completion of course. If taking this as senior year Government course, an Economics course must be taken in addition to this course. Also, for students who cannot schedule this course during the day, an online option is available. Students must speak to their guidance counselors about this.

*270 United States Government and Politics AP

Recommended Prerequisite: Teacher recommendation

This course is designed to give students an analytical perspective on government and politics in the United States. It involves the study of democratic ideas and the balance of power and tensions between the practical and ideal in national policy making. Students will become acquainted with the variety of theoretical perspectives and explanations for various behaviors and outcomes. Using current events, students will analyze and discuss the importance of various constitutional principles, rights and procedures, institutions, and political processes that impact us as citizens. This course satisfies the government requirement for graduation. The course has a summer reading requirement. Grade weighted upon successful completion of course. An Economics course must be taken in addition to this course.

*271 American Government GHP

Prerequisites: GHP World Studies teacher recommendation.

The content of this course is the same as that of the CP Government courses. However, activities and resources that require higher level thinking skills and some differentiated content are used to challenge the capabilities of these students.

*272 American Government CP

Prerequisites: American Studies 2; Eleventh-grade Social Studies

American National Government is based on a beginning analysis of the Federal Constitution and how it influenced possible the development of democratic institutions. Separate study is given to the divisions of the Federal Government, Congress, the Presidency, and the Courts. The overall emphasis is on government as an evolving process, based on fixed principles and informed by history.

*276 American Government CEW

Prerequisites: American Studies; Eleventh-grade Social Studies

The American Government CEW course shares the information and ideas studied in CP Government. Special emphasis is placed on the practical aspects of citizenship: voter registration, elections, public opinion, the rights and duties of citizens. Students who select this course must be enrolled in Lehigh Career & Technical Institute. If a student withdraws from LCTI, they will also be withdrawn from this course and required to enroll in course American Government CP (272).
ADDITIONAL COURSE OFFERINGS:
Please note that these courses are not core social studies offerings and cannot be used to fulfill the 4.0 social studies credits for graduation.

CAREER PATHWAYS:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credit</th>
<th>Grade Level(s)</th>
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<th>Eng. &amp; IT</th>
<th>A&amp;H</th>
<th>H &amp; HS</th>
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<tbody>
<tr>
<td>230</td>
<td>European History AP</td>
<td>1</td>
<td>11, 12</td>
<td>x</td>
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<tr>
<td>229</td>
<td>Human Geography AP</td>
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<td>9, 10, 11, 12</td>
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<td>255</td>
<td>Psychology AP</td>
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<td>11, 12</td>
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<td>251</td>
<td>General Psychology</td>
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<td>253</td>
<td>Elective Sociology</td>
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<td>284</td>
<td>Introduction to Criminal Justice</td>
<td>1</td>
<td>11, 12</td>
<td>x</td>
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<tr>
<td>286</td>
<td>Criminal Investigations</td>
<td>1</td>
<td>11, 12</td>
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KEY:
B & C = Business and Communication Technology
Eng. & IT = Engineering and Industrial Technology
A & H = Arts and Humanities
H & HS= Health and Human Services

*230  European History AP  2 semesters  1 credit  Grades 11, 12
This course examines European history since 1450 and introduces students to cultural, economic, political, and social developments that played a fundamental role in shaping the world in which they live. Without this knowledge, we would lack the context for understanding the development of contemporary institutions, the role of continuity and change in present-day society and politics, and the evolution of current forms of artistic expression and intellectual discourse. In addition to providing a basic narrative of events and movements, the goals of the AP program in European History are to develop (a) an understanding of some of the principal themes in modern European History, (b) an ability to analyze historical evidence and historical interpretation, and (c) an ability to express historical understanding in writing. This course has a summer assignment requirement. Grade weighted upon successful completion of course.

*229  Human Geography AP  2 Semesters  1 credit  Grades 9, 10, 11, 12
This course is intended to provide students with a systematic study of the earth and its inhabitants; students will be discovering how humans use and impact the earth. Using geographic methods of observation, data gathering and reporting, interpreting maps, and employing spatial concepts students will study a variety of global issues from the past and present while also looking at future implications. Topics of study include; how to think geographically and use maps, population issues, culture, political geography, agricultural and rural land use, industrialization and economic development, cities and urban land use and globalization and the environment. With this course students will develop knowledge of geography as a social science and be better prepared for the global marketplace. This course has a summer assignment requirement. Grade weighted upon successful completion of course.

*255  Psychology AP  2 Semesters  1 Credit  Grades 11, 12
This course is designed to introduce students to the systematic and scientific study of behavior and mental processes of human beings and other animals. Students are exposed to psychological facts, principles and phenomena associated with each of the major subfields within psychology. Students also learn about the ethics and methods psychologists use in their science and practice. This course has a summer assignment requirement. Grade weighted upon successful completion of course.

*251  General Psychology  1 Semester  .5 Credit  Grades 11, 12
The course deals with the science of behavior. The student is introduced to the environmental reasons for personal activity by examining the founding theories and methods used by psychologists to categorize and explain behavior. Subject matter will include the processes of sensation and perception, learning and conditioning, personality and methodology.

*253  Elective Sociology  1 Semester  .5 Credit  Grade 12
The course acquaints the student with the basics of human relations. This is accomplished through an examination of what is culture, how the individual absorbs it and relates to it, the purpose of social institutions, and the real problems that arise from the socialization
process. Students are encouraged to observe societal activity and make objective evaluations relating to specific aspects of American culture.

284 Introduction to the Criminal Justice System

<table>
<thead>
<tr>
<th>1 Semester</th>
<th>1 Credit</th>
<th>Grades 11, 12</th>
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<tbody>
<tr>
<td>The course reviews the full spectrum of the criminal justice system. The five primary elements of the system – police, criminal courts, probation, prisons, and parole – are studied. Interrelationships are stressed and problem areas discussed, particularly with respect to Constitutional guarantees. This is a Dual Enrollment course that meets twice a week during periods 1 &amp; 2 at PHS. (Note that scheduling of this course is subject to change as it may be offered on a different schedule in the future.) It is equivalent to CJA 101 worth 3 transferable credits at LCCC provided students earn a final grade of a “C” or higher in the course. A tuition charge applies.</td>
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286 Criminal Investigations

<table>
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<tr>
<th>1 Semester</th>
<th>1 Credit</th>
<th>Grades 11, 12</th>
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</thead>
<tbody>
<tr>
<td>Principles of criminal investigation are studied. The crime scene search, interview and interrogation, surveillance, and records are stressed. The techniques used in special investigations, collection and preservation of evidence, and preparation for police cases in court are also covered. This is a Dual Enrollment course that meets twice a week during periods 1 &amp; 2 at PHS. (Note that scheduling of this course is subject to change as it may be offered on a different schedule in the future.) It is equivalent to CJA 105 worth 3 transferable credits at LCCC provided students earn a final grade of a “C” or higher in the course. A tuition charge applies.</td>
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<tr>
<td>8th Grade</td>
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<td>(310) GEOMETRY Honors</td>
<td>(320) COLLEGE ALGEBRA Honors</td>
<td>(390) PRECALCULUS Honors</td>
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<td>(320) COLLEGE ALGEBRA Honors or (321) COLLEGE ALGEBRA GHP</td>
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<td>(311) GEOMETRY GHP</td>
<td>(322) COLLEGE ALGEBRA CP</td>
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<td>ALGEBRA 1</td>
<td>(304) ALGEBRA 2 GHP or (301) ALGEBRA 2, Gr. 9</td>
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<td>(302) ALGEBRA 2 CP</td>
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<td>(302) ALGEBRA 2 CP</td>
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<td>MATH SEMINAR 8</td>
<td>(318) PRINCIPLES OF ALGEBRA</td>
<td>(300) ALGEBRA 1 CP</td>
</tr>
<tr>
<td>MATH SEMINAR 8</td>
<td>(324) MATH SEMINAR</td>
<td>(318) PRINCIPLES OF ALGEBRA</td>
</tr>
</tbody>
</table>
Please note:

1. Three years of high school MATH and a minimum of three credits are required for graduation.
2. NCAA Clearinghouse Division I eligibility requires two math courses at the level of Algebra I or above between 9th and 12th grades. Only courses marked with an asterisk (*) are approved by the NCAA Clearinghouse.
3. Students may change paths. Consult with your guidance counselor or assistant principal.
4. Courses listed are based on curriculum and student projections. Actual course offerings are based on actual student requests.
5. This listing is based on the best information available at this time. It is not a guarantee of courses to be offered.
6. Course selection should be made on the basis of parent and student interest after evaluation of one's academic abilities.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Time Duration</th>
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<td>2 Semesters</td>
<td>1</td>
<td>9, 10</td>
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<tr>
<td>318</td>
<td>Principles of Algebra</td>
<td>2 Semesters</td>
<td>1</td>
<td>9, 10</td>
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<tr>
<td>*300</td>
<td>Algebra 1 CP</td>
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<td>Algebra 2 GHP</td>
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<td>*302</td>
<td>Algebra 2 CP</td>
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<td>10, 11</td>
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</table>

**NOTE: THIS COURSE IS NOT AVAILABLE FOR STUDENTS WHO HAVE COMPLETED ALGEBRA 1.**

This course introduces students to fundamental math concepts needed for success in Principles of Algebra. Through ongoing data collection, students will receive individualized instruction designed to challenge them within their current skill sets and to provide remediation and/or enrichment when appropriate. The topics include number system, ratios, proportions, expressions, exponents, basic geometry, statistics, probability, graphing coordinates and linear equations, functions and solving multi-step equations. The focus is on learning the computational procedures and then applying the skills to problem solving in applications. Throughout this course, students will learn problem solving skills and analytical thinking.

This course will prepare students with the skills needed for success in Algebra 1. For this course, students should possess a strong foundation of Pre-Algebra concepts such as operations with real numbers, order of operations, and solving linear equations. Students will develop an understanding of various math skills such as solving linear and absolute value equations and inequalities, radicals, exponents rules, graphing, absolute value equations and inequalities, systems of equations and inequalities, analyzing graphs and statistics. The topics covered include theory as well as practical and real-world applications.

**Prerequisite: Completion of Algebra I; It is recommended that students scored Proficient or Advanced on the Keystone Algebra Exam.**

This is the second course in the Algebra sequence. Topics introduced in Algebra 1 are expanded and new algebraic concepts will be introduced. These include: Number Systems, Non-Linear Expressions and Equations, Patterns, Relations, Functions, Application of Functions, and Data Analysis. In addition, several new topics (rational expressions, polynomial functions, complex numbers, logarithmic functions, exponential functions and counting principles) will be studied.

**Prerequisite: Algebra 1 CP**

This is the second course in the Algebra sequence. Various topics introduced in Algebra 1 are expanded and reviewed. New algebraic concepts will be introduced. These new concepts include non-linear expressions and equations, applications of functions, rational expressions, variation, radical equations, and complex numbers.

**Prerequisites: Algebra 1 CP**

This is the second course in the Algebra sequence. Various topics introduced in Algebra 1 are expanded and reviewed. New algebraic concepts will be introduced. These new concepts include non-linear expressions and equations, applications of functions, rational expressions, variation, radical equations, and complex numbers.
Geometry Honors 2 Semesters 1 Credit Grade 9
Prerequisites: Invitation based on standardized and local test information, teacher evaluation, and Algebra 2 GHP grade.
Geometry enables a student to study relationships between geometric figures using deductive reasoning. The course develops a logical mathematical system using definitions, assumptions, properties, and theorems. Included are topics such as congruent and similar triangles, parallel lines, ratio and proportion, areas, circles, etc. The accelerated content of this course, which is aligned with the PA Common Core State Standards, also includes coordinate geometry, transformational geometry, solid geometry, and introduction to trigonometry. Note that this course has a summer requirement. Grade weighted upon successful completion of course. Final grade of “B” or better provides automatic placement in the next course in the series.

Geometry GHP 2 Semesters 1 Credit Grades 9, 10
Prerequisites: Invitation to gifted/high potential students based on standardized and local test information, teacher evaluation, and Algebra 2 GHP/CP grade.
Geometry enables a student to study relationships between geometric figures using deductive reasoning. The course develops a logical mathematical system using definitions, assumptions, properties, and theorems. Included are topics such as congruent and similar triangles, parallel lines, ratio and proportion, areas, volumes, circles, and polygons. Activities and resources that require higher level thinking skills and differentiated content are used to challenge the capabilities of these higher achieving students. The course is aligned with the PA Core Standards. Final grade of “C” or better provides automatic placement in the next course in the series.

Geometry CP 2 Semesters 1 Credit Grades 10, 11, 12
Prerequisite: Algebra 2 CP
Geometry enables a student to study relationships between geometric figures using deductive reasoning. The course develops a logical mathematical system using definitions, assumptions, properties, and theorems. Included are topics such as congruent and similar triangles, parallel lines, ratio and proportion, areas, circles, and polygons.

College Algebra Honors 2 Semesters 1 Credit Grades 9, 10
Prerequisites: Honors Geometry completion and teacher recommendation.
This course is geared to the advanced student in mathematics. It is designed to introduce students to the nature of Algebra as a logical system, emphasizing theory as well as application. The course begins with a review and extension of the fundamental concepts of Algebra, equations and inequalities. Relations and functions, polynomial and rational functions and their graphs, exponential and logarithmic functions, counting theory, and systems of equations and inequalities are covered. Note that this course has a summer requirement. Grade weighted upon successful completion of course. Final grade of “B” or better provides automatic placement in the next course in the series.

College Algebra GHP 2 Semesters 1 Credit Grades 10, 11
Prerequisites: Invitation to gifted/high potential students based on standardized and local test information, teacher evaluation, and Geometry GHP “C” or higher average.
College Algebra GHP is a full year course that continues the study of the concepts presented in Algebra 2. These include algebraic expressions, linear and non-linear equations and inequalities, relations and functions, polynomial and rational functions and their graphs, exponential and logarithmic functions, and systems of equations and inequalities. Final grade of “C” or better provides automatic placement in the next course in the series.

College Algebra CP 2 Semesters 1 Credit Grades 10, 11
Prerequisites: Algebra 2 GHP/CP and Geometry GHP/CP
College Algebra CP is a full year course that continues the study of the concepts presented in Algebra 1 and Algebra 2. These include studies in algebraic expressions, linear and non-linear equations and inequalities, relations and functions, graphing, systems of equations and inequalities, polynomial and rational functions, exponential and logarithmic functions.

College Algebra CP, 12th Grade 2 Semesters 1 Credit Grade 12
Prerequisite: Algebra 2 GHP/CP and Geometry GHP/CP
College Algebra CP, Grade 12 is a full year course for seniors who wish to continue their mathematical careers in preparation for college. This course continues the study of the concepts presented in Algebra I and Algebra II. These include the study of: algebraic expressions, linear and non-linear equations and inequalities, relations and functions, polynomial and rational functions, exponential and logarithmic functions, graphing systems of equations and inequalities.
*390  Precalculus Honors  
2 Semesters  1 Credit 
grades 10, 11
Prerequisites: Honors College Algebra completion and teacher recommendation.
This course is geared to the advanced student in mathematics who plans to continue studies in the AP Calculus course sequence. Topics will include logarithmic and exponential functions, sequences, series, and limits. This course will completely investigate the six trigonometric functions, the six inverse trigonometric functions and their many applications. Students will investigate graphs of the six trigonometric functions as well as the basic conic sections: circles, parabolas, ellipses and hyperbolas. This course content will be accelerated to emphasize deductive reasoning and problem solving to allow more preparation for entry into AP Calculus. This course has a summer requirement. Final grade of “B” or better provides automatic placement in the next course in the series. Grade weighted upon successful completion of course.

*391  Precalculus CP  
2 Semesters  1 Credit 
grades 11, 12
Prerequisite: College Algebra GHP/CP
This course is geared to the student who needs to prepare for a future course in Calculus. Topics will include logarithmic and exponential functions, sequence, series and limits. This course will investigate the six trigonometric functions, the six inverse trigonometric functions and their many applications. Students will also investigate graphs of the trigonometric functions as well as the basic conic sections: circles, parabolas, ellipses and hyperbolas. Deductive reasoning and problem-solving applications will be emphasized.

*340  Calculus AP, Level AB  
2 Semesters  1 Credit 
grades 11, 12
Prerequisites: Honors College Algebra, Honors Precalculus, and teacher recommendations.
This course is geared to the advanced student who will encounter higher mathematics in college in specialized fields such as engineering, science and mathematics. Differential and integral calculus, and a review of analytical geometry related to calculus are included. Students are introduced to a functional concept as a way of reaching the differential and integral calculus. In addition to the basic calculus course content, additional concepts relating to integration and differentiation may also be presented. Completion of this course will prepare students to take the Advanced Placement Calculus AB test in May. The course has a required summer requirement. Grade weighted upon successful completion of course.

*342  Calculus CP  
2 Semesters  1 Credit 
grade 12
Prerequisites: Precalculus Honors/CP
This course is geared to the advanced student in mathematics. Basically, the course is for the student who will encounter higher mathematics in college in specialized fields such as engineering, science and mathematics. Differential and integral calculus, and a review of analytical geometry related to calculus. Students are introduced to a functional concept as a way of reaching the differential and integral calculus. In addition to the basic calculus course content, additional concepts relating to integration and differentiation may also be presented.

*343  Calculus AP, Level BC  
2 Semesters  1 Credit 
grades 11, 12
Prerequisites: Successful completion of Calculus AP, Level AB and teacher recommendation.
This course is geared toward the advanced mathematics student who will encounter higher mathematics in college in specialized fields such as engineering, science and /or mathematics. Differential and Integral Calculus and their applications will be reviewed and extended. Transcendental functions, advanced integration techniques with their applications, Infinite Series and other relevant topics will fill the remainder of the course. Students may take this course for four (4) undergraduate college credits through Lehigh Carbon Community College’s dual enrollment program. The student is responsible for the payment of the reduced tuition to the college for this course. Completion of this course will prepare the student for the Advanced Placement Calculus BC test in May. Note that the course has a required summer assignment. Grade weighted upon successful completion of course.

*344  Advanced Topics in Calculus (AP Weighted)  
2 Semesters  1 credit 
grades 11, 12
Prerequisites: Successful completion of both AP Calculus AB (340) and AP Calculus BC (343)
Students taking this course will move beyond the AP Calculus sequence and will explore the concepts of vector analysis, three dimensional analytic geometry, vectors in space, partial differentiation, double and triple integrals, and integral vector calculus. Students may take this course for four (4) undergraduate college credits through Lehigh Carbon Community College’s dual enrollment program. The student is responsible for the payment of the reduced tuition to the college for this course. Note that this course has a required summer assignment. Grade weighted upon successful completion of course. The course is weighted at the AP level. However, please note that this is NOT an AP course as per the College Board. Thus, students will NOT take an AP exam for this course.
**ADDITIONAL COURSE OFFERINGS:**
Please note that these courses are not core math offerings and cannot be used to fulfill the 3.0 math credits for graduation.

**CAREER PATHWAYS:**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credit</th>
<th>Grade Level(s)</th>
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<th>Eng. &amp; IT</th>
<th>A&amp;H</th>
<th>H &amp; HS</th>
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<td>393</td>
<td>Trigonometry/Statistics</td>
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<td>359</td>
<td>Game Development &amp; Design</td>
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</tbody>
</table>

**KEY:**
- B&C = Business and Communication Technology
- Eng. & IT = Engineering and Industrial Technology
- A & H = Arts and Humanities
- H & HS = Health and Human Services

*350  Statistics AP  2 Semesters  1 Credit  Grades 11, 12
Prerequisites: Completion of College Algebra. Grade weighted upon successful completion of course.

Advanced Placement Statistics consists of four main topics: exploring data, planning a study, probability as related to distributions, and inferential reasoning. The full-year course blends the rigor, calculations, and deductive thinking of mathematics with real world applications, problems of social sciences, the decision making of business, and experimental procedures of natural sciences.

349  Statistics  2 Semesters  1 Credit  Grade 12
Prerequisite: Completion of College Algebra

Statistics is a full year course for seniors that focuses on the science of interpreting data. This course will deal with the collection, classification and use of numerical facts (data) with respect to a specific subject or matter. This course will blend calculations and the deductive reasoning of mathematics with real world application. Topics to be covered include: Exploring Data, Distributions and their Applications, Confidence Intervals, Hypothesis Testing and Linear Regression.
This course would be beneficial for those students who are anticipating a career in business, economics or the social sciences. This course is not intended for a student who wants to take the AP Statistics Exam in May.

393  Trigonometry/Statistics  2 Semesters  1 Credit  Grade 12
Prerequisite: Completion of College Algebra

This course is designed to give a senior student an introduction to the basic concepts of both Trigonometry and Statistics. The first half of the course will be built around the six trigonometric functions which are defined from previously learned algebraic and geometric concepts. These functions will allow students to solve problems and applications of right triangles. Students will verify trigonometric identities, solve trigonometric equations and graph trigonometric functions. During the second half of the course, students will study the basic concepts of Statistics which is the study of data collection and interpretation. Students will collect, classify and use numerical facts to interpret and analyze data sets. This course is best suited for the senior who has completed College Algebra and who wishes to study an introduction to Trigonometry and Statistics in a hands-on approach.

359  Game Development and Design  2 Semesters  1 Credit  Grades 9, 10, 11, 12
This course explores the fundamentals of game design and development. It will focus on the core features of the Unity3D game engine. Students will work on all aspects of game design which includes level design, texturing and materials, terrain, physics, animation, 2D & 3D rendering, and user interface. Students will also be introduced to programming in C# to develop scripts to implement into their games to create functionality and interactivity. By the end of the school year students will be able create a game that includes many of the common features found in current video games.
353  Math Internship  1 Semester  .25 Credit  Grades 11, 12
Prerequisite: “B” or better in any GHP or Honors level math course beyond Algebra 2.
Math Interns work in the Library, Study Lab or Learning Support class to assist students who need one-on-one help in math. Interns will be assigned to work with 1 – 3 students who are in need of additional instructional support in a math course that the Intern has already successfully completed. Interns will reinforce concepts taught by the math teacher, help student organize for study, review for tests, assist with homework, and encourage their students to persevere. The Intern will be supervised by the regularly-scheduled study lab teacher, and can choose to work during their regularly-scheduled study halls, in addition to at least one day per week in the after-school Math Lab. Interns may apply their hours of service toward the National Honor Society tutoring requirement. Interns will receive training in the course procedures, effective communication and tutoring techniques. Course is offered Pass/Fail.

399  Transitional College Math  1 Semester  .5 Credit  Grade 12
Transitional College Mathematics is a course designed to ensure students attending Lehigh Carbon Community College after graduation from Parkland High School will satisfy all LCCC requirements for placing out of remedial mathematics courses at LCCC. Students will utilize the diagnostic capabilities of Math XL software to work at an individual pace to identify personal problematic mathematical content and then work through a remediation plan for that content. Successful completion of the course and mastery of its content will ensure the student will not take remedial non-credit math classes at LCCC upon admission. The student will be allowed to move directly into credit bearing college level mathematics courses which count toward the student’s individual degree requirements.
**THE 400 COURSES: SCIENCE**

**2019 – 2020 Projected SCIENCE Paths and Choices**

| 9th Grade         | 10th Grade                                      | 11th Grade                                      | 12th Grade                                      |
|-------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|
| (410) EARTH SCIENCE HONORS | (424) BIOLOGY HONORS + or (424) BIOLOGY HONORS + | (430) CHEMISTRY HONORS or (430) CHEMISTRY HONORS | (434) CHEMISTRY AP or (434) CHEMISTRY AP |
| or (421) BIOLOGY CP + | (410) EARTH SCIENCE HONORS or (410) EARTH SCIENCE HONORS | or (440) PHYSICS 1 AP or (440) PHYSICS 2 AP | or (443) PHYSICS 2 AP or (444) AP PHYSICS C: MECHANICS |
| or (431) CHEMISTRY HONORS | (431) CHEMISTRY HONORS | or (443) PHYSICS 2 AP or (444) AP PHYSICS C: MECHANICS | and/or (447) AP PHYSICS C: ELEC. & MAG. |
| (411) EARTH SCIENCE GHP | (421) BIOLOGY GHP + | | or (420) BIOLOGY AP or (455) ENVIRONMENTAL SCIENCE AP |
| (412) EARTH SCIENCE CP | (422) BIOLOGY CP + | (432) CHEMISTRY CP or (432) CHEMISTRY CP | or (430) CHEMISTRY HONORS or (440) PHYSICS 1 AP |
| | | or (436) CONCEPTUAL CHEMISTRY/(446) CONCEPTUAL PHYSICS | or (435) PSI – CHEM/(445) PSI – PHYSICS |
| | | | or SCIENCE ELECTIVES |

+ **NOTE:** Beginning with the Class of 2017, Biology (Honors, GHP, CP, or Applied) is required for graduation.

**SCIENCE ELECTIVES:** Elective courses can be substituted for recommended courses or taken along with recommended courses.
**Please Note:**

1. Three credits of high school SCIENCE are required for graduation, including Biology (Honors, GHP, CP, or Applied).
2. NCAA Clearinghouse Division 1 eligibility requires two lab science courses between 9th and 12th grades. Only courses marked with an asterisk (*) are approved by the NCAA Clearinghouse.
3. Students may change paths. Consult with your guidance counselor or the building principal.
4. Courses listed are based on curriculum and student projections.
5. Actual course offerings are based on actual student requests.
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<td>Geology of National/State Parks</td>
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<td>12</td>
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</tbody>
</table>

**KEY:**

- B&C = Business and Communication Technology
- Eng. & IT = Engineering and Industrial Technology
- A & H = Arts and Humanities
- H & HS = Health and Human Services
**410  Earth Science Honors**  
2 Semesters  
1 Credit  
Grade 9

**Prerequisites:** Algebra 1. Based on standardized test results, previous performance, teacher evaluation, interest in and enthusiasm about the subject.

This course includes the study of the formation of common rocks and minerals, the structure of the earth’s interior, the geologic and biological evolution of the earth, and the processes that create the surface landscape, hydrosphere, and atmosphere. Human and environmental hazards are also examined. Laboratory work includes the study of rocks, minerals, fossils, topographic maps, landforms, and geologic maps. The scientific methods by which earth scientists interpret earth history and solve environmental problems are introduced.  
*The course has a summer reading requirement.*  
*Grade weighted upon successful completion of course.*

**411  Earth Science GHP**  
2 Semesters  
1 Credit  
Grades 9, 10, 11, 12

The Earth Science GHP course presents the student with an Earth systems approach to scientific inquiry. This lab-oriented course is designed to introduce students to the interdependence of the Earth’s major sub-systems: lithosphere, biosphere, hydrosphere, atmosphere, and cryosphere. An emphasis will be placed upon classroom activities and computer applications that require higher level thinking skills and some differentiation of content. GHP students will enhance their critical thinking through the completion of an Earth Science research project.

**412  Earth Science CP**  
2 Semesters  
1 Credit  
Grades 9, 10, 11, 12

The college preparatory course presents students with an Earth Systems approach to scientific inquiry. This lab-oriented course is designed to introduce the interdependence of the Earth’s major sub-systems: lithosphere, biosphere, hydrosphere, atmosphere, and cryosphere. An emphasis will be placed upon classroom activities and computer applications that promote the development of science process skills.

**463  Geology of National/State Parks**  
1 Semester  
.5 Credit  
Grades 11, 12

**Prerequisites:** Successful completion of both Algebra 1 and Biology

This one-semester lab course is an introduction into the ecology and geology of the National Parks and other natural areas of the US. Students will become familiar with ecological and geological concepts through examples drawn exclusively from our National and State parks (e.g., Grand Canyon, Zion, Bryce Canyon, etc.) The use of various activities, including use of the internet, will provide additional learning opportunities for each student.

**464  Oceanography**  
1 Semester  
.5 Credit  
Grades 11, 12

**Prerequisites:** Successful completion of both Algebra 1 and Biology

This laboratory-oriented course will provide an introduction to the marine sciences with an emphasis on the physical features of ocean basins, shoreline processes, the physical and chemical nature of seawater, and natural resources of the ocean. Field trips, computer applications, and internet activities will provide additional opportunities for further investigations.

**461  Meteorology**  
1 Semester  
.5 Credit  
Grades 10, 11, 12

**Prerequisites:** Successful completion of both Algebra 1 and Biology

Meteorology is the study of the atmosphere and weather conditions. This course will acquaint students with earth processes that create weather patterns and systems. Students will explore concepts through laboratory work, outdoor labs, computer investigations, and research, as well as mapping and satellite imagery. Students should be aware that there will be extensive application of math skills. Classroom activities and applications require higher level reading comprehension and the ability to synthesize information.

**462  Astronomy**  
1 Semester  
.5 Credit  
Grades 10, 11, 12

**Prerequisites:** Successful completion of both Algebra 1 and Biology

Astronomy is the study of the universe. This course will acquaint students with the history of astronomy, the fundamentals of astronomical theory, including the evolution of stars, the structure of galaxies, and the history and future of space exploration. Students will explore concepts through laboratory work, computer investigations and research, and debates on public policy and the space administration. Students should be aware that math skills are crucial to understanding many astronomical concepts.

**437  Environmental Science**  
1 Semester  
.5 Credit  
Grades 11, 12

This course emphasizes the interrelationships between humans and their environment. Major units include human population problems, water resources and pollution, air resources and pollution, soil resources, wildlife habitats, energy and mineral resources, and relationships between society and the biosphere. Learning is accomplished through the use of reading text, lecture notes, frequent lab activities, individual worksheets, group work, videos, and case studies.
Biology Honors  2 Semesters  1 Credit  Grades 9, 10
Prerequisites: This course is designed for students who have a strong interest in science, have demonstrated outstanding previous performance in the sciences, and have received the appropriate teacher recommendation. Honors biology follows a molecular approach to the understanding and appreciation of living things and their environment, and is aligned to the PA State Standards. The course sequence follows the 8 anchors assessed on the PA Biology Keystone Exam, and students are required to take the Keystone Exam at the end of the course. Students at the honors level will be expected to demonstrate higher levels of learning, cover materials at a faster pace, and exhibit successful independent learning strategies. The course has a required summer assignment. Grade weighted upon successful completion of course. NOTE: BIOLOGY IS REQUIRED FOR GRADUATION. THIS COURSE FULFILLS THIS GRADUATION REQUIREMENT.

Biology GHP  2 Semesters  1 Credit  Grades 10, 11
GHP biology follows a molecular approach to the understanding and appreciation of living things and their environment, and is aligned to the PA State Standards. The course sequence follows the 8 anchors assessed on the PA Biology Keystone Exam, and students are required to take the Keystone Exam at the end of the course. The content of this course is the same as that of the CP Biology course. However, some differentiated instruction is used to challenge the capabilities of these students. NOTE: BIOLOGY IS REQUIRED FOR GRADUATION. THIS COURSE FULFILLS THIS GRADUATION REQUIREMENT.

Biology CP  2 Semesters  1 Credit  Grades 10, 11, 12
CP biology follows a molecular approach to the understanding and appreciation of living things and their environment, and is aligned to the PA State Standards. The course sequence follows the 8 anchors assessed on the PA Biology Keystone Exam, and students are required to take the Keystone Exam at the end of the course. This course is designed for the college preparatory level student, and course pacing is less intense than that of the GHP and Honors levels. NOTE: BIOLOGY IS REQUIRED FOR GRADUATION. THIS COURSE FULFILLS THIS GRADUATION REQUIREMENT.

Biology AP  2 Semesters  1 Credit  Grades 11, 12
Prerequisites: Successful completion of full year Biology and Chemistry courses at either GHP or Honors level. The AP Biology course is designed to be the equivalent of a two-semester college introductory biology course. The aim is to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal with the rapidly changing science of biology. The course is taught as a hands-on, inquiry-based approach structured around the four Big Ideas identified by the College Board. The major concepts of the course include: molecules and cells, heredity and evolution, and organisms and populations. Each of these concepts has ties to the Big Ideas and incorporates the themes of science as a process, structure and function, energy use, reproduction, and evolution. Students are expected to spend two hours of studying and preparation outside of class for every hour of class time. (This includes reading the text, completing online activities and assessments, reviewing materials, and completing research and lab reports.) The course also includes a 10-hour summer assignment which is due on the first day of class. A complete description of the course and its expectations are available through the College Board at http://www.collegeboard.com/student/testing/ap/sub_bio.html?biology. Grade weighted upon successful completion of course. NOTE: BIOLOGY IS REQUIRED FOR GRADUATION REQUIREMENT AS STUDENTS MUST COMPLETE A FULL YEAR OF BIOLOGY TO PARTIALLY FULFILL THE PREREQUISITES FOR THIS COURSE.

Environmental Science AP  2 Semesters  1 Credit  Grades 11, 12
Recommended Prerequisites: Successful completion of Earth Science, Biology, and Chemistry. This course emphasizes the interrelationships between humans and the environment. Major units include human population problems, water resources and pollution, air resources and pollution, soil resources, wildlife habitats, energy and mineral resources, and relationships between society and the biosphere. Learning is accomplished through the use of reading the text, lecture notes, frequent lab activities, individual worksheets, group activities, videos, and several field trips. The class will follow the AP Environmental Science curriculum from the College Board and students may choose to complete the AP test for Environmental Science in May. The course has a required summer requirement. Grade weighted upon successful completion of course.

Anatomy and Physiology  1 Semester  .5 Credit  Grades 11, 12
Recommended Prerequisites: Grade of “B” or better in Biology and teacher recommendation; It is recommended that students complete Human Biology (438) prior to enrolling in this course. This is an advanced biology elective emphasizing the structures and functions of the human body. The course is designed for those students considering a profession in or relating to the allied health fields. Strong emphasis is placed on the terminology in anatomy. Content includes: directional and positional terms, biological organization, overview of body systems, and nutrition. Students will also dissect a cat in this course.
**438 Human Biology**  
1 Semester  
.5 Credit  
Grades 10, 11, 12

Prerequisites: Grade of “C” or better in Biology and teacher recommendation; It is recommended that students take this course prior to enrolling in Anatomy and Physiology (452).

This course is designed for students who would like to expand their knowledge of the human body. An integrated approach is taken to the study of structures and functions of the 11 systems of the human body via laboratory experiences and text-based instruction. Emphasis is placed on symptoms, causes, and treatments of various human diseases. Students will also dissect a fetal pig in this course. **NOTE THAT HUMAN BIOLOGY DOES NOT FULFILL THE BIOLOGY GRADUATION REQUIREMENT.**

**453 Ecology**  
1 Semester  
.5 Credit  
Grades 10, 11, 12

Recommended Prerequisite: Grade of “C” or better in last science course

This course emphasizes the interrelationships between humans and their environments. Topics include biomes, pollution, populations, plant and animal identification, and sampling techniques.

**454 Botany**  
1 Semester  
.5 Credit  
Grades 10, 11, 12

Recommended Prerequisite: Biology

This course uses laboratory, text, and field investigations to study the plant kingdom. Areas of concentration include the classification of plants, the structure and function of plant tissues and organs, and the importance of plants to humans. Each student will complete a major botany project, as well as an independent research project involving plants.

**456 Zoology**  
1 Semester  
.5 Credit  
Grades 10, 11, 12

Recommended Prerequisite: Biology

This course uses laboratory, text, and field investigations to study the animal kingdom. Dissection is a required part of this course. Areas of concentration include the classification of animals, comparative anatomy and physiology, and field identification of local animals. Dissection of a vertebrate such as a dogfish shark and/or fetal pig will be included.

**484 Science of Firefighting**  
1 Semester  
.5 Credit  
Grades 11, 12

This course is an elective that utilizes a cross-curricular approach in order to examine the practice of firefighting. The class will focus on many different aspects of an emergency: fire behavior, building construction, hazardous materials, and teamwork. History, language skills, law, technology, and scientific theory will be addressed. Instruction will include a blend of theory and “hands-on” skill building, involving all of the resources used in the fire service, including protective clothing, air packs, tools, ropes, engines, and hose lines. Students will have the opportunity to become certified in CPR and First Aid.

**486 Emergency Medical Technician (EMT) Basic Course**  
2 Semesters  
1 Credit  
Grade 12

Prerequisite: Students must be 16 years of age by the end of May of the school year.

Emergency medical technicians (EMT) are the first medical professionals to arrive on the scene of a crisis, evaluate the severity of the wound or illness and provide medical treatment. Because their quick responses and depth of knowledge will often save lives, an EMT must complete formal training and be licensed before treating patients. In partnership with Cetronia Ambulance Corp., students will have the opportunity to participate in this certification course that will prepare students to pass the assessments needed for EMT certification, including the practical psychomotor skills examination, the national registry written test, and patient contact evaluation. Students will be given an array of written and hands-on experiences to prepare them for the assessments. As this is a national registry certification, students will be able to take this anywhere throughout the United States to work as an EMT. Note that this course requires students to pay a $75 exam fee for certification. Students are also required to have 10 patient interactions that they must schedule on their own with Cetronia Ambulance Corp. This course will run for a double period every other day for the full year. **Please note: A minimum of 10 students is needed to run this course and is capped at 15 total students. Also, if a student chooses to drop the class before the start of the school year, he or she may face a withdraw fee to pay for the unused textbook and materials (unless another student is added to the class after textbooks are ordered).**

**430 Chemistry 1 Honors**  
2 Semesters  
1 Credit  
Grades 10, 11, 12

Prerequisites: Student must have earned an “A” in Algebra 2. Honors Biology teacher recommendation.

This course is designed for students who are planning a career in the sciences and have a strong background in physical science. A solid math foundation is necessary to participate in this theoretically oriented, in-depth study of selected topics as it also includes topics generally taught in the first half of the AP Chemistry course. Students completing this course with a “B” or better have the option to register for AP Chemistry. **The course has a summer reading requirement.** Grade weighted upon successful completion of course.
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Duration</th>
<th>Credits</th>
<th>Grade Levels</th>
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<td>*431</td>
<td>Chemistry GHP</td>
<td>2 Semesters</td>
<td>1 Credit</td>
<td>Grades 10, 11, 12</td>
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<td></td>
<td>Prerequisites: Student must have earned a “B” or better in Algebra 2. GHP or Honors Biology teacher recommendation. The content of this course is more demanding than the C. P. Chemistry course. Activities, resources and assessments that require higher level thinking skills and some differentiated content are designed to challenge the abilities of the students.</td>
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<td>*432</td>
<td>Chemistry CP</td>
<td>2 Semesters</td>
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<td>Prerequisite: Grade of “C” or better in Algebra II or must be taking Algebra II concurrently. This course is designed for students whose career plans recommend a required high school chemistry course. Successful completion of Algebra 2 is strongly recommended for students participating in this course, which will provide a foundation in chemistry through the study of fundamental topics.</td>
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<td>*434</td>
<td>Chemistry AP</td>
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<td>Prerequisite: Final grade of “B” or better in Chemistry 1 Honors. This is a laboratory-oriented course for those students planning a career in the sciences and for students desiring a strong background in chemistry. A solid math foundation is necessary to participate in this theoretically oriented in-depth study of selected topics. The course has a summer reading requirement. Grade weighted upon successful completion of course.</td>
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<tr>
<td>435</td>
<td>Physical Science Investigations: Chemistry</td>
<td>1 Semester</td>
<td>.5 Credit</td>
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<td>Prerequisites: Successful completion of Earth Science and Biology. This class will use a hands-on approach to investigating the concepts of chemical reactions, the structure of matter, and its periodic qualities. This course meets in a single period for one semester and must be taken in conjunction with # 445 Physical Science Investigations: Physics in order to meet the graduation requirement.</td>
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<td>445</td>
<td>Physical Science Investigations: Physics</td>
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<td>This class will use a hands-on approach to investigating the concepts of motion, forces, and energy. This class meets in a single period for one semester and must be taken in conjunction with # 435 Physical Science Investigations: Chemistry in order to meet the graduation requirement.</td>
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<td>436</td>
<td>Conceptual Chemistry</td>
<td>1 Semester</td>
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<td>Prerequisites: Successful completion of Earth Science, Biology, and a grade of “C” or better in Alg. I. This course, which meets daily for a single period, will provide an introduction to matter, energy and their interrelationships. Students will be responsible for learning about systems of measurement and performing unit conversions. In addition, students will learn basic concepts of atomic structure, calorimetry, acid-base theory and how it relates to environmental issues and society. This course must be selected with Conceptual Physics to fulfill the science requirement for one year.</td>
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<td>446</td>
<td>Conceptual Physics</td>
<td>1 Semester</td>
<td>.5 Credit</td>
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<td>Prerequisites: Successful completion of Earth Science, Biology and a grade of “C” or better in Alg. I. This course, which meets daily for a single period, is an introductory course in physics and will be developed through lab activities, demonstrations, and various hands-on experiences. Topics will include mechanics, waves and sound, light and optics, and electricity and magnetism. This course must be selected with Conceptual Chemistry to fulfill the science requirement for one year.</td>
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<tr>
<td>*441</td>
<td>Physics GHP</td>
<td>2 Semesters</td>
<td>1 Credit</td>
<td>Grades 10, 11, 12</td>
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<td>Prerequisites: Final Grade of “B” or better in Algebra 2 and Geometry The content of this course is the same as that of the Physics CP course; however, activities and resources that require higher level thinking skills and some differentiated content are used to challenge the capabilities of these students.</td>
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<td>*442</td>
<td>Physics CP</td>
<td>2 Semesters</td>
<td>1 Credit</td>
<td>Grades 10, 11, 12</td>
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<td></td>
<td>Recommended Prerequisites: Grade of “C” or better in Algebra 2 and Geometry Students interested in expanding their level of scientific literacy and their knowledge of how physics can be integrated into various career fields should consider this course. Areas that will be studied are motion, force, momentum, energy, special relativity, waves, sound, light, color, reflection, refraction, lenses, diffraction, interference, electrostatics, electric fields, potential, electric current, electric circuits, magnetism, and electromagnetic induction. Laboratories, demonstrations, and applications are an integral part of this course.</td>
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**440  Physics 1 AP**  
2 Semesters  
1 Credit  
Grades 11, 12  
Prerequisite: Final grade of “B” or better in Honors or GHP College Algebra.  
The content of this course is highly theoretical and in depth. Areas studied are translational and rotational motion, force, momentum, energy, gravitation, waves, sound, electrostatics and DC circuits. Computer-based laboratories, demonstrations, and many real life applications are an integral part of this course. This is a first year, algebra based course, and if taken by the student as an underclassman, will prepare the student for the Physics AP Level C offerings, which are calculus based, or Physics 2 AP. Students succeeding on the Physics 1 AP test may claim up to five college credits in Physics or some other elective. (Note that this varies by college/university.) This course will utilize a blended format in that it will meet in a classroom for two periods every other day for the entire year, but in one semester, two additional days of instruction will occur through an online platform. *The course has a summer requirement.* Grade weighted upon successful completion of course.

**443  Physics 2 AP**  
2 Semesters  
1 Credit  
Grades 11, 12  
Prerequisite: Final grade of “B” or better in Physics 1 AP.  
This course is appropriate for students who wish to pursue careers in mathematics, physics, architecture, engineering, actuary, medicine, pharmacy, life sciences, geology, meteorology, environmental science, agriculture, construction management, and much more. AP Physics 2 is an algebra-based, introductory college-level physics course that explores topics such as: fluid statics and dynamics, thermodynamics with kinetic theory, PV diagrams and probability, electrostatics, electrical circuits with capacitors, magnetic fields, electromagnetism, physical and geometric optics; and quantum, atomic, and nuclear physics. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. Students succeeding on the Physics 2 AP test may claim up to five college credits in Physics or some other elective. (Note that this varies by college/university.) *The course has a summer requirement.* Grade weighted upon successful completion of course.

AP Physics Level C: (Physics for Engineers and Scientists)  
1 Credit (each course)  
Grade 12  
Prerequisites: A final grade of “B” or better in Physics 1 AP. Must be taking or have taken Calculus.  
AP Physics C consists of two courses; Mechanics (444), and Electricity and Magnetism (447). These courses are designed to be taken in conjunction with one another. However, Mechanics (444) may be taken without Electricity and Magnetism (447), but Mechanics (444) is the required prerequisite for Electricity and Magnetism (447). AP Physics Level C courses are calculus-based, college-level physics courses that are especially appropriate for students planning to specialize or major in physical science or engineering at the college level. These courses are also designed for students who wish to further their knowledge of upper level mathematics applications or sharpen their problem-solving skills. In these courses, students will design and conduct inquiry-based laboratory investigations to solve problems through first-hand observations, data collection, analysis and interpretation. Students will develop critical thinking skills through the application of methods of differential and integral calculus to formulate physical principles and solve complex physical problems. Emphasis is placed on application, technology, depth of knowledge, and rigor.

**444  Mechanics**  
Prerequisites: A final grade of “B” or better in Physics 1 AP. Must be taking or have taken Calculus.  
This course covers the physics of motion, force, energy, and momentum. Engineering and science applications are studied and include the design and control of spacecraft, airplanes, trains and roller coasters, road and structural design, accident investigation, ballistics, navigation, and sports. Real-time computer based data collection techniques using acceleration, force and motion sensors, and video analysis are an integral part of the laboratory and demonstrations. Students succeeding on the Mechanics AP Physics Level C test may claim up to five college credits in Physics or some other elective. (Note that this varies by college/university.) *The course has a summer requirement.* Grade weighted upon successful completion of course.

**447  Electricity and Magnetism:**  
Prerequisites: A final grade of “B” or better in AP Physics C: Mechanics. Must be taking or have taken Calculus.  
This course explores topics such as electrostatics, conductors, capacitors, and dielectrics, electric circuits, magnetic fields, and electromagnetism. Introductory differential and integral calculus is used throughout the course. This course helps students develop a deep understanding of foundational principles of physics in electricity and magnetism by applying these principles to complex physical situations that combine multiple aspects of physics rather than present concepts in isolation. Students succeeding on the Electricity and Magnetism AP Physics Level C test may claim up to five college credits in Physics or some other elective. (Note that this varies by college/university.) *Grade weighted upon successful completion of course.*
THE 500 COURSES: WORLD LANGUAGES

The World Language Department offers five languages: Spanish, French, German, Latin, and Sign Language. In addition, Chinese and Arabic are offered through our partnership with LCCC (see course description below). Achieving proficiency in speaking, listening, reading, and writing as well as developing an appreciation for and understanding of their respective cultures are the primary goals of this department. Students who plan to attend a college/university are strongly advised to schedule a minimum of two years of one world language and are encouraged to take more. Students applying to more competitive colleges/universities should complete four or five years of a world language in order to satisfy more demanding entrance requirements. Overall, the study of a world language not only provides students with the opportunity for an enhanced global education but also gives students the chance to better understand one's native language.

Athletes please note: Only courses marked with an asterisk (*) are approved by the NCAA Clearinghouse.

CAREER PATHWAYS:

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<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credit</th>
<th>Grade Level(s)</th>
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The emphasis in this course is directed toward the four basic language skills: listening, speaking, reading, and writing. The target language is spoken in the classroom to develop comprehension and conversation. These two skills are reinforced through the use of audio, video, and technology. Reading and writing skills are developed through written exercises and cultural readings. Basic grammar, vocabulary, and conversation are taught in the course. Supplementary materials are used to strengthen communicative competence and cultural awareness. A variety of assessments are used to evaluate student performance.

**514 Spanish 1 CP**

2 Semesters 1 Credit Grades 9, 10, 11, 12

The emphasis in this course is directed toward the four basic language skills: listening, speaking, reading, and writing. The target language is spoken in the classroom to develop comprehension and conversation. These two skills are reinforced through the use of audio, video, and technology. Reading and writing skills are developed through written exercises and cultural readings. Basic grammar, vocabulary, and conversation are taught in the course. Supplementary materials are used to strengthen communicative competence and cultural awareness. A variety of assessments are used to evaluate student performance.

**524 Spanish 2 CP**

Prerequisite: Spanish 1 CP

2 Semesters 1 Credit Grades 9, 10, 11, 12

The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. The target language is spoken in the classroom to develop the skills of comprehension and conversation. Proficiency and cultural awareness is strengthened in the classroom by using the three modes of communication (interpersonal, interpretive, and presentational), various activities, and authentic materials. A variety of assessments are used to evaluate student performance.

**538 Spanish 2 Honors**

Prerequisites: Final grade of 90% in Spanish 1 CP and/or teacher recommendation.

The target language is spoken extensively in the classroom to develop the skills of comprehension and conversation. The rigor of this course is designed for students who demonstrate a strong interest and motivation in language study. The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. Proficiency and cultural awareness are strengthened in the classroom by using the three modes of communication (interpersonal, interpretive, and presentational), various activities, and authentic materials. A variety of assessments are used to evaluate student performance. Grade weighted upon successful completion of course.
*534  Spanish 3 CP  2 Semesters  1 Credit  Grades 10, 11, 12
Prerequisite: Spanish 2 Honors/CP
The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. Communication in the target language is expected and the instructor will use the target language extensively to develop the skills of comprehension and conversation. Other objectives include using more complex grammatical structures to develop skills in writing and reading. Students strengthen their language proficiency through the use of authentic materials, various activities, and assessments.

*539  Spanish 3 Honors  2 Semesters  1 Credit  Grades 10, 11, 12
Prerequisites: Final grade of 85% in Spanish 2 Honors and/or teacher recommendation.
The target language is spoken exclusively in the classroom to develop the skills of comprehension and conversation. The rigor of this course is designed for students who demonstrate a strong interest and motivation in language study. The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. Proficiency and cultural awareness are strengthened in the classroom by using the three modes of communication (interpersonal, interpretive, and presentational), various activities, and authentic materials. Other objectives include using more complex grammatical structures to develop skills in writing and reading. A variety of assessments are used to evaluate student performance. Grade weighted upon successful completion of course.

*544  Spanish 4 CP  2 Semesters  1 Credit  Grades 11, 12
Prerequisite: Spanish 3 Honors/CP
Students continuing their language study in this level should have a strong interest and motivation to increase their proficiency level. The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. Communication in the target language is expected and the instructor will use the target language extensively to develop the skills of comprehension and conversation. Other objectives include using more complex grammatical structures to develop skills in writing and reading. Students study target cultures in order to demonstrate an understanding of the practices and perspectives. Students strengthen their language proficiency through the use of authentic materials, various activities, and assessments. Upon satisfactory completion, students can receive 3 college credits through Seton Hall University. A tuition fee applies.

*584  Spanish 4 Honors  2 Semesters  1 Credit  Grades 11, 12
Prerequisites: Final grade of 85% in Spanish 3 Honors and/or teacher recommendation.
The target language is spoken exclusively in the classroom to develop the skills of comprehension and conversation. The rigor of this course is designed for students who demonstrate a strong interest and motivation in language study. The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. Proficiency and cultural awareness are strengthened in the classroom by using the three modes of communication (interpersonal, interpretive, and presentational), various activities, and authentic materials. Communicative use of the language in functional contexts is a primary goal of this course. In context students apply new vocabulary, idiomatic expressions, and grammatical structures. Upon completion of this course, students should be able to communicate on the intermediate oral proficiency level. A variety of assessments are used to evaluate student performance. Upon satisfactory completion, students can receive 3 college credits through Seton Hall University. A tuition fee applies. Grade weighted upon successful completion of course.

*555  Spanish 5 CP  2 Semesters  1 Credit  Grade 12
Prerequisite: Spanish 4 Honors/CP
Students continuing their language study in this level should have a strong interest and motivation to increase their proficiency level. The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. Communication in the target language is expected and the instructor will use the target language extensively to develop the skills of comprehension and conversation. Other objectives include using more authentic literature and video in order to increase students' communicative abilities and cultural understanding. Students study target cultures in order to demonstrate an understanding of the practices and perspectives. Students strengthen their language proficiency through the use of authentic materials, various activities, and assessments. Upon satisfactory completion, students can receive 3 college credits through Seton Hall University. A tuition fee applies.

*554  Spanish AP: Language & Culture  2 Semesters  1 Credit  Grade 12
Prerequisites: Final grade of 85% in Spanish 4 Honors and/or teacher recommendation.
The target language is used exclusively in the classroom. The syllabus for this course has been College Board approved and students are expected to have a strong interest and motivation for language study. Literary, cultural, and contemporary issues form the common themes of this course. Independent research and practice are necessary in order for the students to increase their individual proficiency level and knowledge. This course continues to develop the four language skills: listening, speaking, reading and writing. Proficiency and cultural awareness are strengthened in the classroom by using the three modes of communication (interpersonal, interpretive, and presentational), various activities, and authentic materials. Sample Advanced Placement exercises and activities are used to practice,
review, and expand the advanced skills of the language. Students will have the opportunity to earn college credits for the course upon taking the AP exam in May. Upon satisfactory completion, students can receive 3 college credits through Seton Hall University. A tuition fee applies.  **Grade weighted upon successful completion of course.**

**559  Spanish AP: Literature & Culture**

2 Semesters  1 Credit  Grade 12

Prerequisites: Final grade of 85% in Spanish 4 Honors and/or Spanish AP Language & Culture and/or teacher recommendation.

The target language is used exclusively in the classroom. The syllabus for this course has been College Board approved and students are expected to have a strong interest in literature and motivation for language study. Literary, cultural, and contemporary issues form the common themes of this course. Independent reading and literary analysis are necessary in order for the students to increase their individual proficiency level and knowledge. This course continues to develop the four language skills: listening, speaking, reading and writing. Proficiency and cultural awareness are strengthened in the classroom by using the three modes of communication (interpersonal, interpretive, and presentational), various activities, and authentic materials. Sample Advanced Placement exercises and activities are used to practice, review, and expand the advanced skills of the language. Students will have the opportunity to earn college credits for the course upon taking the AP exam in May.  **Grade weighted upon successful completion of course.**

**511  French 1 CP**

2 Semesters  1 Credit  Grades 9, 10, 11, 12

Prerequisite: French 1 CP

The emphasis in this course is directed toward the four basic language skills: listening, speaking, reading, and writing. The target language is spoken exclusively in the classroom to develop comprehension and conversation. These two skills are reinforced through the use of audio, video, and technology. Reading and writing skills are developed through written exercises and cultural readings. Basic grammar, vocabulary, and conversation are taught in the course. Supplementary materials are used to strengthen communicative competence and cultural awareness. A variety of assessments are used to evaluate student performance.

**521  French 2 CP**

2 Semesters  1 Credit  Grades 9, 10, 11, 12

Prerequisite: French 1 CP

The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. The target language is spoken in the classroom to develop the skills of comprehension and conversation. Proficiency and cultural awareness is strengthened in the classroom by using the three modes of communication (interpersonal, interpretive, and presentational), various activities, and authentic materials. A variety of assessments are used to evaluate student performance.

**560  French 2 Honors**

2 Semesters  1 Credit  Grades 9, 10, 11, 12

Prerequisites: Final grade of 90% in French 1 CP and/or teacher recommendation.

*The target language is spoken extensively in the classroom* to develop the skills of comprehension and conversation. The rigor of this course is designed for students who demonstrate a strong interest and motivation in language study. The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. Proficiency and cultural awareness are strengthened in the classroom by using the three modes of communication (interpersonal, interpretive, and presentational), various activities, and authentic materials. A variety of assessments are used to evaluate student performance.  **Grade weighted upon successful completion of course.**

**531  French 3 CP**

2 Semesters  1 Credit  Grades 10, 11, 12

Prerequisite: French 2 Honors/CP

The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. Communication in the target language is expected and the instructor will use the target language extensively to develop the skills of comprehension and conversation. Other objectives include using more complex grammatical structures to develop skills in writing and reading. Students strengthen their language proficiency through the use of authentic materials, various activities, and assessments.

**561  French 3 Honors**

2 Semesters  1 Credit  Grades 10, 11, 12

Prerequisites: Final grade of 85% in French 2 Honors and/or teacher recommendation.

*The target language is spoken exclusively in the classroom* to develop the skills of comprehension and conversation. The rigor of this course is designed for students who demonstrate a strong interest and motivation in language study. The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. Proficiency and cultural awareness are strengthened in the classroom by using the three modes of communication (interpersonal, interpretive, and presentational), various activities, and authentic materials. Other objectives include using more complex grammatical structures to develop skills in writing and reading. A variety of assessments are used to evaluate student performance.  **Grade weighted upon successful completion of course.**
*541  French 4 CP            2 Semesters  1 Credit            Grades 11, 12
Prerequisite: French 3 Honors/CP
Students continuing their language study in this level should have a strong interest and motivation to increase their proficiency level. The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. Communication in the target language is expected and the instructor will use the target language extensively to develop the skills of comprehension and conversation. Other objectives include using more complex grammatical structures to develop skills in writing and reading. Students study target cultures in order to demonstrate an understanding of the practices and perspectives. Students strengthen their language proficiency through the use of authentic materials, various activities, and assessments. Upon satisfactory completion, students can receive 3 college credits through Seton Hall University. A tuition fee applies.

*581  French 4 Honors        2 Semesters  1 Credit            Grades 11, 12
Prerequisites: Final grade of 85% in French 3 Honors and/or teacher recommendation.
The target language is spoken exclusively in the classroom to develop the skills of comprehension and conversation. The rigor of this course is designed for students who demonstrate a strong interest and motivation in language study. The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. Proficiency and cultural awareness are strengthened in the classroom by using the three modes of communication (interpersonal, interpretive, and presentational), various activities, and authentic materials. Communicative use of the language in functional contexts is a primary goal of this course. In context students apply new vocabulary, idiomatic expressions, and grammatical structures. Upon completion of this course, students should be able to communicate on the intermediate oral proficiency level. A variety of assessments are used to evaluate student performance. Upon satisfactory completion, students can receive 3 college credits through Seton Hall University. A tuition fee applies. Grade weighted upon successful completion of course.

*556  French 5 CP            2 Semesters  1 Credit            Grade 12
Prerequisite: French 4 Honors/CP
Students continuing their language study in this level should have a strong interest and motivation to increase their proficiency level. The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. Communication in the target language is expected and the instructor will use the target language extensively to develop the skills of comprehension and conversation. Other objectives include using more authentic literature and video in order to increase students' communicative abilities and cultural understanding. Students study target cultures in order to demonstrate an understanding of the practices and perspectives. Students strengthen their language proficiency through the use of authentic materials, various activities, and assessments. Upon satisfactory completion, students can receive 3 college credits through Seton Hall University. A tuition fee applies.

*551  French AP: Language & Culture
2 Semesters  1 Credit            Grade 12
Prerequisites: Final grade of 85% in French 4 Honors and/or teacher recommendation.
The target language is used exclusively in the classroom. The syllabus for this course has been College Board approved and students are expected to have a strong interest and motivation for language study. Literary, cultural, and contemporary issues form the common themes of this course. Independent research and practice are necessary in order for the students to increase their individual proficiency level and knowledge. This course continues to develop the four language skills: listening, speaking, reading and writing. Proficiency and cultural awareness are strengthened in the classroom by using the three modes of communication (interpersonal, interpretive, and presentational), various activities, and authentic materials. Sample advanced placement exercises and activities are used to practice, review, and expand the advanced skills of the language. Students will have the opportunity to earn college credits for the course upon taking the AP exam in May. Upon satisfactory completion, students can receive 3 college credits through Seton Hall University. A tuition fee applies. Grade weighted upon successful completion of course.

*513  German 1 CP            2 Semesters  1 Credit            Grades 9, 10, 11, 12
The emphasis in this course is directed toward the four basic language skills: listening, speaking, reading, and writing. The target language is spoken in the classroom to develop comprehension and conversation. These two skills are reinforced through the use of audio, video, and technology. Reading and writing skills are developed through written exercises and cultural readings. Basic grammar, vocabulary, and conversation are taught in the course. Supplementary materials are used to strengthen communicative competence and cultural awareness. A variety of assessments are used to evaluate student performance.

*523  German 2 CP            2 Semesters  1 Credit            Grades 9, 10, 11, 12
Prerequisite: German 1 CP
The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. The target language is spoken in the classroom to develop the skills of comprehension and conversation. Proficiency and cultural awareness is strengthened in the classroom by using the three modes of communication (interpersonal, interpretive, and presentational), various activities, and authentic materials. A variety of assessments are used to evaluate student performance.

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**562** German 2 Honors 2 Semesters 1 Credit Grades 9, 10, 11, 12  
Prerequisites: Final grade of 90% in German 1 CP and/or teacher recommendation.  
The target language is spoken exclusively in the classroom to develop the skills of comprehension and conversation. The rigor of this course is designed for students who demonstrate a strong interest and motivation in language study. The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. Proficiency and cultural awareness are strengthened in the classroom by using the three modes of communication (interpersonal, interpretive, and presentational), various activities, and authentic materials. A variety of assessments are used to evaluate student performance. Grade weighted upon successful completion of course.

**533** German 3 CP 2 Semesters 1 Credit Grades 10, 11, 12  
Prerequisite: German 2 Honors/CP  
The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. Communication in the target language is expected and the instructor will use the target language extensively to develop the skills of comprehension and conversation. Other objectives include using more complex grammatical structures to develop skills in writing and reading. Students strengthen their language proficiency through the use of authentic materials, various activities, and assessments.

**563** German 3 Honors 2 Semesters 1 Credit Grades 10, 11, 12  
Prerequisites: Final grade of 85% in German 2 Honors and/or teacher recommendation.  
The target language is spoken exclusively in the classroom to develop the skills of comprehension and conversation. The rigor of this course is designed for students who demonstrate a strong interest and motivation in language study. The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. Proficiency and cultural awareness are strengthened in the classroom by using the three modes of communication (interpersonal, interpretive, and presentational), various activities, and authentic materials. Other objectives include using more complex grammatical structures to develop skills in writing and reading. A variety of assessments are used to evaluate student performance. Grade weighted upon successful completion of course.

**543** German 4 CP 2 Semesters 1 Credit Grades 11, 12  
Prerequisite: German 3 Honors/CP  
Students continuing their language study in this level should have a strong interest and motivation to increase their proficiency level. The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. Communication in the target language is expected and the instructor will use the target language extensively to develop the skills of comprehension and conversation. Other objectives include using more complex grammatical structures to develop skills in writing and reading. Students study target cultures in order to demonstrate an understanding of the practices and perspectives. Students strengthen their language proficiency through the use of authentic materials, various activities, and assessments. Upon satisfactory completion, students can receive 3 college credits through Seton Hall University. A tuition fee applies.

**583** German 4 Honors 2 Semesters 1 Credit Grades 11, 12  
Prerequisites: Final grade of 85% in German 3 Honors and/or teacher recommendation.  
The target language is spoken exclusively in the classroom to develop the skills of comprehension and conversation. The rigor of this course is designed for students who demonstrate a strong interest and motivation in language study. The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. Proficiency and cultural awareness are strengthened in the classroom by using the three modes of communication (interpersonal, interpretive, and presentational), various activities, and authentic materials. Communicative use of the language in functional contexts is a primary goal of this course. In context students apply new vocabulary, idiomatic expressions, and grammatical structures. Upon completion of this course, students should be able to communicate on the intermediate oral proficiency level. A variety of assessments are used to evaluate student performance. Upon satisfactory completion, students can receive 3 college credits through Seton Hall University. A tuition fee applies. Grade weighted upon successful completion of course.

**552** German 5 CP 2 Semesters 1 Credit Grade 12  
Prerequisite: German 4 Honors/CP  
Students continuing their language study in this level should have a strong interest and motivation to increase their proficiency level. The emphasis in this course is continued development of the four language skills: listening, speaking, reading and writing. Communication in the target language is expected and the instructor will use the target language extensively to develop the skills of comprehension and conversation. Other objectives include using more authentic literature and video in order to increase students' communicative abilities and cultural understanding. Students study target cultures in order to demonstrate an understanding of the practices and perspectives. Students strengthen their language proficiency through the use of authentic materials, various activities, and assessments. Upon satisfactory completion, students can receive 3 college credits through Seton Hall University. A tuition fee applies.
German AP: Language & Culture

*553  German AP: Language & Culture

Prerequisites: Final grade of 85% in German 4 Honors and/or teacher recommendation.

The target language is used exclusively in the classroom. The syllabus for this course has been College Board approved and students are expected to have a strong interest and motivation for language study. Literary, cultural, and contemporary issues form the common themes of this course. Independent research and practice are necessary in order for the students to increase their individual proficiency level and knowledge. This course continues to develop the four language skills: listening, speaking, reading and writing. Proficiency and cultural awareness are strengthened in the classroom by using the three modes of communication (interpersonal, interpretive, and presentational), various activities, and authentic materials. Sample advanced placement exercises and activities are used to practice, review, and expand the advanced skills of the language. Students will have the opportunity to earn college credits for the course upon taking the AP exam in May. Upon satisfactory completion, students can receive 3 college credits through Seton Hall University. A tuition fee applies. Grade weighted upon successful completion of course.

Latin 1 CP

*512  Latin 1 CP

Prerequisite: Final grade of 70% in Latin 1 CP and/or teacher recommendation.

This course presents the phonological, grammatical, and semantic systems of Latin, the "mother" language of today's Romance languages (French, Spanish, Italian, Portuguese and Romanian). Instruction stresses Latin's influence upon the English language, particularly in the area of vocabulary and etymology. Roman culture and civilization, the basis of our Western Heritage, are also emphasized both by the Latin readings and by various discussion topics, such as mythology, archaeology, and history. In addition to tests, students are also evaluated on the basis of written work, oral reports, homework, class work, and class participation.

Latin 2 CP

*522  Latin 2 CP

Prerequisite: Final grade of 70% in Latin 1 CP and/or teacher recommendation.

This course is a continuation of Latin I; however, it is a more intensive study of the Latin language. After a short grammar review, students will continue with further stages in the Cambridge Latin Course, Units 2 & 3, to expand their base of Latin grammar and to increase reading fluency. The course will emphasize Roman culture and civilization, with a focus on the provinces of Egypt and Britain, and will continue building English vocabulary skills. For projects, students will design a travel packet to the Wonders of the World (ancient and modern), create a Roman style curse tablet, and film a short play from the text. Upon satisfactory completion, students can receive 3 college credits through Seton Hall University. A tuition fee applies.

Latin 3 CP

*532  Latin 3 CP

Prerequisite: Final grade of 70% in Latin 2 CP and/or teacher recommendation.

Latin 3 continues the foundation of Latin 2. Students will review previously taught grammatical concepts and then continue with the remainder of Unit 3 of the Cambridge Latin Course. Students will complete culture projects related to readings in the text, including planning a trip from Rome using ancient transportation methods, recreating wooden tablets from Vindolanda for an archaeological conference, and producing a segment for a TV series on the monuments of ancient Rome. The course will also emphasize the building of English vocabulary through Latin root words. Upon satisfactory completion, students can receive 3 college credits through Seton Hall University. A tuition fee applies.

Latin 4 CP

*542  Latin 4 CP

Prerequisite: Final grade of 70% in Latin 3 CP and/or teacher recommendation.

Latin 4 is a continuation of Latin 3. It completes the formal study of grammar and provides a selective look at several Roman writers, including Caesar, Cicero, Vergil, and Ovid. Students will complete several related projects throughout the year, including an autobiographical report of a Roman author, and will examine the meters used by Roman poets.

Sign Language 1 CP

*516  Sign Language 1 CP

This beginning language course will provide an introduction to the signed alphabet and basic sign language. New Vocabulary and language patterns will be provided for expressive and receptive practice. Upon successful completion of this course, students will be able to communicate in a limited degree with the deaf and hard-of-hearing community using finger-spelling, signing and gesturing. This is also a Dual Enrollment course. Upon satisfactory completion, students can receive 3 college credits through LCCC. A tuition fee applies.

Sign Language 2 CP

*526  Sign Language 2 CP

Prerequisite: Sign Language 1 CP

This course is a continuation of the Sign Language 1 course. More advanced vocabulary and expressions will be introduced and basic skills will be reinforced to produce a greater proficiency of communication. Upon successful completion of this course, students will have a solid foundation in ASL to communicate with the deaf and hard-of-hearing community by means of finger-spelling, signing, and
gesturing. This is also a Dual Enrollment course. Upon satisfactory completion, students can receive 3 college credits through LCCC. A tuition fee applies.

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<th>Course Number</th>
<th>Course Name</th>
<th>Duration</th>
<th>Credits</th>
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<tr>
<td>*536</td>
<td>Sign Language 3 CP</td>
<td>2 Semesters</td>
<td>1 Credit</td>
<td>Grades 11, 12</td>
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<tr>
<td>Prerequisite:</td>
<td>Sign Language 2 CP</td>
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This course will review and build upon vocabulary from Sign Language 2. Emphasis will be placed on receptive and expressive skills to produce greater proficiency in the language. Many interpreting skills will be used. Classroom interaction in Sign Language is expected. This is also a Dual Enrollment course. Upon satisfactory completion, students can receive 3 college credits through LCCC. A tuition fee applies

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<tr>
<td>*546</td>
<td>Sign Language 4 CP</td>
<td>2 Semesters</td>
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<td>Grade 12</td>
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<tr>
<td>Prerequisite:</td>
<td>Sign Language 3 CP</td>
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The purpose of this course is to enable students to further develop advanced skills in American Sign Language through a linguistic, communicative, and cultural approach to language acquisition. Emphasis is placed on receptive and expressive signing, applied grammar, cross-cultural understanding, and real-life applications.

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<tr>
<td>*590</td>
<td>Chinese 1 CP</td>
<td>1 Semester</td>
<td>1 Credit</td>
<td>Grades 9, 10, 11, 12</td>
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This is a beginning level course that will introduce students to Mandarin Chinese. In this course, students will learn listening, speaking, reading and writing skills through activities that are designed for students who are just starting their studies of this language. Students will learn to express themselves using an ever increasing vocabulary. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is also sprinkled throughout the course in an attempt to help the learner focus on the Chinese speaking world and its culture, people, geographical locations and histories. This course is offered for dual enrollment for 3 credits from LCCC. A tuition charge applies, and students will need to purchase their own textbook and/or supplementary resources for this course. This course will only run during the first semester of the school year. Note that the availability of this course is determined by LCCC and may not run every year. Students also have the option of taking this course through Parkland’s cyber program. However, the cyber course does not offer LCCC dual enrollment credit. Students should speak with their guidance counselors to determine which option will work best for them.

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<tr>
<td>*591</td>
<td>Chinese 2 CP</td>
<td>1 Semester</td>
<td>1 Credit</td>
<td>Grades 9, 10, 11, 12</td>
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<tr>
<td>Prerequisite:</td>
<td>Chinese 1 CP</td>
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This course builds on the listening, speaking, reading, and writing skills taught in Chinese 1. The course includes a study of the Chinese phonetic system, character writing, sentence structure, and expanded knowledge of Chinese culture. Further acquisition of language skills in listening, speaking, reading, and writing will be emphasized. This course is offered for dual enrollment for 3 credits from LCCC. A tuition charge applies, and students will need to purchase their own textbook and/or supplementary resources for this course. This course will only run during the first semester of the school year. Note that the availability of this course is determined by LCCC and may not run every year. Students also have the option of taking this course through Parkland’s cyber program. However, the cyber course does not offer LCCC dual enrollment credit. Students should speak with their guidance counselors to determine which option will work best for them.

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<td>*592</td>
<td>Arabic 1 CP</td>
<td>1 Semester</td>
<td>1 Credit</td>
<td>Grades 9, 10, 11, 12</td>
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This course is designed for students as an introduction to Arabic script and letter pronunciation, basic conversation skills, and gradual building of reading, writing, speaking, and listening skills at a beginning level. Aspects of Arab culture/history will also be introduced. This course is offered for dual enrollment for 3 credits from LCCC. A tuition charge applies, and students will need to purchase their own textbook and/or supplementary resources for this course. This course will only run during the first semester of the school year. Note that the availability of this course is determined by LCCC and may not run every year.

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<tr>
<td>*593</td>
<td>Arabic 2 CP</td>
<td>1 Semester</td>
<td>1 Credit</td>
<td>Grades 9, 10, 11, 12</td>
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<tr>
<td>Prerequisite:</td>
<td>Arabic 1 CP</td>
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Arabic 2 is the continuation of Arabic 1. This course will help students to develop basic skills in aural comprehension, speaking, reading, and writing. Basic grammatical concepts will be reviewed, and more complex grammatical and sentence structures will be presented. Students will also be introduced to the cultures in Arabic-speaking countries through a variety of activities. This course is offered for dual enrollment for 3 credits from LCCC. A tuition charge applies, and students will need to purchase their own textbook and/or supplementary resources for this course. This course will only run during the first semester of the school year. Note that the availability of this course is determined by LCCC and may not run every year.
THE 600 COURSES: BUSINESS, COMPUTER & INFORMATION TECHNOLOGY

Business affects every aspect of a person’s life. When enrolling in Business Computer Information Technology (BCIT) courses, students are exposed to the dynamic world of business and become contributing members of a global society. BCIT courses will engage students in the theory of law, entrepreneurship, digital computer literacy and web design. Additionally, the basic principles of finance, marketing, management and accounting will promote critical thinking. As students progress through the Pathways below, they will learn more about the dynamic world of business.

Have an interest in one of these areas of Business? If so, follow the Pathways guide when selecting your courses.

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Accounting</th>
<th>Finance</th>
<th>Entrepreneurship</th>
<th>Information Technology</th>
<th>Computer Science</th>
<th>Management</th>
<th>Marketing</th>
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<tr>
<td>Consider these BCIT Elective course options for the following Career Pathway</td>
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<td>Intro to Business (9-10-12)</td>
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**KEY:**
- B&C = Business and Communication Technology
- Eng. & IT = Engineering and Industrial Technology
- A & H = Arts and Humanities
- H & HS = Health and Human Services

### 600 Introduction to Business
1 Semester  
.5 Credit  
Grades 9, 10

**Note:** Successful completion of this course is a prerequisite for Entrepreneurship (649), Marketing Principles (657), and Business Management (656).

This course will introduce the student to the exciting and challenging world of business. It will help students become knowledgeable consumers, well-prepared employees, and effective citizens in our economy. It will give the student a better understanding of what it will take to become a business owner as well. Topics to be addressed will include economic systems, social and ethical responsibility, entrepreneurship, human resources, business operations, and management leadership styles. Finance, marketing, risk management and insurance are all addressed as well giving the students a better understanding of how the ever-changing business world operates in a global society. It is strongly recommended for all ninth-grade students to prepare themselves for real world situations in their professional and personal endeavors.

### 634 College & Career Success Skills
1 Semester  
.5 Credit  
Grades 10, 11, 12

This course will help to develop skills that will give students an edge on applying for college or for a job. Students will learn strategies for lifelong learning including proper note taking, and effective testing strategies. In addition, personal learning styles will be identified, and the multiple intelligence theory will be explored. Students will research a variety of careers and complete items useful in the job search process including cover letter and resume writing, interviewing techniques, and time management skills will be developed. Students will research a college of interest and learn about the application process, financial aid, and scholarships.

### 622 Personal Keyboarding
1 Semester  
.5 Credit  
Grades 9, 10, 11, 12

As our world relies more on computers to handle everyday work and leisure activities, the art of accurate keyboarding is necessary. Whether you’re emailing a friend, developing a class presentation, or downloading map directions, keyboarding knowledge can make the job easier. This course is designed to develop touch-typing skills on the alphabetic and numeric keyboard. All students can benefit from this course since daily, repetitive keying will increase the speed and accuracy of both novice and experienced typists.

### 630 Elements of Digital Literacy
1 Semester  
.5 Credit  
Grades: 9, 10, 11, 12

Students will be introduced to basic programming languages. This course introduces students to basic computer literacy, including computational, key applications, and living online. It enables students to receive personalized instructions toward completion of the Internet Core Competency Certification (IC3) and will prepare students for future computer science classes. An interest in programming and computer science are encouraged to enroll in this course.

### 620 Personal Computer Applications with a Microsoft Certification
1 Semester  
.5 Credit  
Grades 9, 10, 11, 12

This course is designed to introduce and achieve mastery in Microsoft Word, PowerPoint, and Excel. This elective course would provide students with a library of Microsoft Office applications training that enable students to receive personalized instructions toward completion of several industry-recognized certifications, including Microsoft Office Specialist (MOS), Expert, and Master. More information about the program can be found online at http://www.microsoft.com/itacademy. Students may register for this class for three total semesters to further their certifications from MOS to Expert and/or Master.

### 637 Multimedia Applications with Internet Core Competency Certification
1 Semester  
.5 Credit  
Grades 9, 10, 11, 12

This course introduces the student to uses of the computer with the various multimedia applications available today. Using a variety of hardware, students will incorporate sounds, pictures, and videos to produce multimedia presentations. Students will work with Web 2.0
applications such as Google Apps, Prezi, and Windows Media Player. This allows the student to create an academic resource in which they will have the ability to integrate personalized technology into their education process.

647 Web Page Design
1 Semester .5 Credit Grades 9, 10, 11, 12
Students will learn how to create professional looking websites using the popular and widely used web design software, Adobe Dreamweaver, CS4. Dreamweaver provides a user-friendly interface and editor that enables a non-technical person to successfully develop compelling web pages without having in-depth knowledge of HTML. Over 70% of all major websites are built and maintained using Dreamweaver. Students should be comfortable with computers and be able to work independently.

650 HTML and Introduction to Coding
1 Semester .5 Credit Grades 9, 10, 11, 12
Recommended Prerequisite: Elements of Digital Literacy (630)
Students will learn Hypertext Markup Language, the “behind the scenes” language of the Internet. Students will understand HTML well enough to create basic web pages in Notepad, with no assistance from a web editor. Also, students will be introduced to other basic programming languages. Students will also cover an introduction to computer science, to spark interest in future computers science classes. An interest in programming and computer science is highly recommended.

655 Sports and Entertainment Marketing
1 Semester .5 Credit Grades 9, 10, 11, 12
This course will take you on a step-by-step journey through the exciting world of sports and entertainment marketing. You will learn about the key functions of marketing and how those functions are applied to the sports and entertainment industry. Guest speakers, case studies, field trips, and online activities will broaden the classroom learning experience.

659 Hospitality & Tourism Marketing
1 Semester .5 Credit Grades 10, 11, 12
This exciting course will cover the basics of marketing and management within the hospitality and tourism industries. It will also introduce students to the global environment in which business is conducted within the hospitality and tourism service industry. The course is organized around four major topics: food service, lodging, travel, and tourism. The major functions of business are addressed with a focus placed on timely issues, diversity, and business challenges within the hospitality and tourism industry. Students have the opportunity to see the tourism and hospitality industries firsthand.

657 Marketing Principles
1 Semester .5 Credit Grades 10, 11, 12
Prerequisite: Introduction to Business (600)
This course provides students with the opportunity to examine marketing from both the business and consumer perspective. You will have opportunities to create products and apply the marketing functions to gain real world experience. You will also have the opportunity to create a promotional strategy for a local business. This course is a great foundation for college level marketing courses. The overall goals of this course are to provide students with a strong foundation in marketing principles, aid students in understanding the marketing process and its relation to the free enterprise system, and allow students to explore marketing strategies as they pertain to the teenage market.

651 Sports and Entertainment Management
1 Semester .5 Credit Grades 10, 11, 12
This course gives students the opportunity to understand the basic functions of management using topics in the sport industry. Management, marketing, financial and ethical principles will be applied to sports. In addition, information on industry segments such as facility management, event management and sports agency will be presented. Students will also gain an understanding of topics such as the impact of technology on sport industries, the globalization of the sports industry, managing diversity within the sport, and ethics in sports organizations.

656 Business Management
1 Semester .5 Credit Grades 10, 11, 12
Prerequisite: Introduction to Business (600)
This exciting, non-traditional course provides a basic foundation for individuals who are considering a career in business. Students will gain an understanding of topics such as economics, legal, and social aspects along with information on organizing, businesses, marketing products and services, financing operations, managing and developing employees, and making difficult decisions in a global competitive society. Other integral components that will be covered are organizational change, diversity in the workplace, ethics, international competition, the link between business and society, and the vital role that technology plays in the form of the Internet and E-commerce.
664  Business Law I  1 Semester .5 Credit  Grades 9, 10, 11, 12
This course reviews our legal system and introduces the binding of contracts and its parts. This course also covers sales law and employment law, covering the rights of the businesses who have employees and the rights of employees themselves.

665  Business Law II  1 Semester .5 Credit  Grades 9, 10, 11, 12
Prerequisite: Business Law I
This course introduces the legal forms of business organization, the law of corporations, and organizational forms for small businesses. This course also introduces how to borrow money, covers secure and unsecure credit transactions, and teaches students the spectrum of creditors, debtors, and bankruptcy.

652  Personal Finance  1 Semester .5 Credit  Grades 9, 10, 11, 12
This course is intended to give students background in all aspects of dealing with personal finances. It provides them with the opportunity to learn how to make decisions in many key real-life situations including: home acquisition, budgeting, banking services, investment essentials, understanding taxes and credit management.

658  Investing  1 Semester .5 Credit  Grades 10, 11, 12
Recommended Prerequisite: Personal Finance (652).
Americans today are more responsible than ever for their financial futures. Yet, many Americans, adults, and children alike know little about the basic principles and facts of money management, saving and investing. This course introduces students to the world of investing, its benefits and risks, and the critical role it plays in fostering capital formation and job creation in our free market system.

649  Entrepreneurship  1 Semester .5 Credit  Grades 11, 12
Prerequisite: Introduction to Business (600) and Marketing Principles (657) or Business Management (656).
This course will prepare students for small business ownership as well as for the workforce of the future. Seven out of 10 high school students want to own and operate their own business. Throughout the semester students will learn about Entrepreneurial trends and traits, various types of business ownership, and will study successful entrepreneurs and their businesses. They will have opportunities to put the entrepreneurial process into action. Students will have the ability to pull from their knowledge of this course along with their other business courses to develop an innovative business idea and work with a team to write a Business Plan. It prepares students to carry out the entrepreneurial process and experience its spirit. Students in grades 11 and 12 can also earn 3 college credits through the University of Iowa for a tuition fee of $150. Students do not pay tuition unless they have successfully completed the course and have earned a 70% or higher on the comprehensive exam.

632  Accounting I  1 Semester .5 Credit  Grades 10, 11, 12
This course will provide students with an understanding of the importance of accounting principles in both society and the business world. Accounting I covers a complete accounting cycle for a service business organized as a proprietorship. Online computer access at home is expected as students will utilize Aplia for online working papers that supplement our online textbook as well as apply accounting principles by completing a simulated accounting project.

633  Accounting II  1 Semester .5 Credit  Grades 10, 11, 12
Prerequisite: “C” or better in Accounting I (632).
This course studies the accounting cycle for a merchandising business organized as a corporation. Students will apply accounting principles by completing an automated accounting simulation. Online computer access at home is expected as students will utilize Aplia for online working papers that supplement our online textbook as well as apply accounting principles by completing a simulated accounting project.

648  Accounting Honors  1 Semester .5 Credit  Grades 11, 12
This course challenges the honors student with completing both levels of accounting in one semester. The business cycle for service and merchandising businesses is learned as well as the differences in accounting for sole proprietorships, partnerships, and small corporations. Automated accounting software is used. Grade weighted upon successful completion of course.

654  School Store Practice  1 Semester .5 Credit  Grade 12
Prerequisites: Employment application and at least three previous Business courses. Application must be picked up in the store and returned with course request form.
Students get first-hand experience in the operation and management of a small retail establishment. They are involved in all aspects of running the store from promotions, inventorying, to operating a computerized register. The complete operation of a small business is studied and practiced. Evaluation is accomplished through projects as well as practical applications and written assignments.
THE 700 COURSES: VISUAL ARTS

Parkland High School (PHS) offers its students in grades nine through twelve, a choice of craft electives: jewelry and metals, ceramics, and traditional crafts; PARC electives include photography, computer graphics, and art history; and fine art electives include drawing, painting, portfolio prep., and AP Studio Art. This offered elective program centers around a gallery that rotates on two cycles. The months of September through December feature exhibitions of current practicing artists of Eastern Pennsylvania. Exhibits balance both two-dimensional and three-dimensional artwork and span a variety of styles from traditional to contemporary. The months of January through June feature student work created in the Art Studios throughout the course of the school year. Each month is devoted to a particular media. The month of May features art work of PHS senior art award recipients, the PHS Art Show, and Festival of the Arts.

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**KEY:**

- B&C = Business and Communication Technology
- Eng. & IT = Engineering and Industrial Technology
- A&H = Arts and Humanities
- H & HS = Health and Human Services

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**701 Painting 1**

This is an introductory course in the fundamentals of painting incorporating color theory, design, application techniques, composition, and overall technique. Activities that reinforce these elements will be used throughout the course. Beginning as well as more advanced students should take this course either as an extension in further understanding color after Drawing I or as a precursor to Painting II. Instruction and demonstration will precede each painting activity. Painting media will include acrylic and watercolor and occasional demonstrations of oils or other media to broaden the student’s overall understanding of painting. Specific subjects will be assigned for each project. Students may opt to take this course for Dual Enrollment and earn 3 transferable LCCC credits.

**702 Painting 2**

Prerequisite: Grade of “B” or better in Painting 1

This course builds upon experiences from Painting 1. Design, composition and technique will be emphasized. Review of methods and techniques will precede each painting activity. Opportunities for continued painting time as well as experimentation are included. Study of specific media may include watercolor, acrylics, oils, and gouache and possible mixed media combinations. Students will be allowed more freedom of interpretation of subject matter to be used with each painting medium.
703  Drawing 1  1 Semester  .5 Credit  Grades 9, 10, 11, 12
This is an introductory course in the fundamentals of drawing. Beginning as well as more advanced students should take this course. Design and composition principles are an integral part of the instruction. Projects will help students understand the concepts of linear perspective, spherical and cylindrical forms, value, shading, form, and positive and negative space. Instruction and demonstration will precede each activity. Projects are designed to teach students how to draw from direct observation, photographic resources and imagination. Materials will include black and white media as well as a colored pencil project that will allow students a broader choice of subject matter and introduce them to some basic color theory. Note that this course focuses on various mediums in drawing and does not include Anime and Pokémon. Students may opt to take this course for Dual Enrollment and earn 3 transferable LCCC credits.

704  Drawing 2  1 Semester  .5 Credit  Grades 10, 11, 12
Prerequisite:  Grade of “B” or better in Drawing 1
This is a course that carries Drawing 1 experiences to a higher level. Exercises will include experimenting with drawing materials including mixed media. Design and composition concepts will still be emphasized as an integral part of the lessons. The possibility of materials used may include graphite pencil, charcoal, conte, metal point, colored pencil, pastels, and pen and ink. Note that this course focuses on various mediums in drawing and does not include Anime and Pokémon. Students may opt to take this course for Dual Enrollment and earn 3 transferable LCCC credits if Drawing 1 was taken for Dual Enrollment previously.

700D  AP Studio Art: Drawing 3  2 Semesters  1 Credit  Grades 10, 11, 12
Prerequisite:  A grade of “A” or better in Drawing 2 and/or teacher recommendation.
AP Studio Art: Drawing 3 is an advanced studio course for students who are looking to improve their drawing skills. The course is built on the knowledge and techniques learned in Drawing 1 and 2 but on a higher level with an emphasis on concentration, breadth, and quality. Students will learn new techniques in observation to create drawings from life. Pictorial references will also be used to develop artistic skills. Through assigned projects, students will create realistic drawings and experiment with abstraction in order to find their own artistic voice. The course is designed to expose students to a variety of media: chalk, oil pastels, charcoal, and colored pencils. Portfolio submission will afford students the opportunity to garner college and art school credit. This course meets for double periods every other day during the entire school year. Grade weighted upon successful completion of the course.

706  Portfolio Preparation  
Dbl. Periods/2 Semesters  1 Credit  Grades 11, 12
Prerequisite:  A grade of “B” or better in Drawing 1, Painting 1, and/or teacher approval.
This course is designed for students who are preparing advanced level portfolio quality work in order to pursue art studies after graduation. It is expected that these students be highly motivated and committed to their art activities and production in order for them to meet the requirements of their potential college or art school choices. Sketchbook assignments outside of class are an important part of the student’s development, and deadlines for this work are strictly followed. Work is reviewed through teacher guided peer critique and teacher assessment. Resulting portfolios will show a broad range of studies and pursuits using a variety of subjects and media. Deadlines are strictly followed. Work is reviewed through teacher guided peer critique and teacher assessment. Portfolio submission will allow students the opportunity to garner college and art school credit. This course meets for double periods every other day during the entire school year. Grade weighted upon successful completion of the course.

700  AP Studio Art: 2-D Design  
Dbl. Periods /2 Semesters  1 Credit  Grade 12
Prerequisite:  Grade of “B” or better in Portfolio Preparation and/or teacher approval.
This course is a continuation of work begun in Portfolio Preparation. During the double period, each student will be guided toward completing a portfolio of artwork that mirrors the recommendation of the Studio Art Advanced Placement Curriculum. Students will be encouraged to stretch the limits of their work to demonstrate their technical and conceptual maturity. Since this is an individualized instructional program, completion and credit for the AP course will be determined by the student’s completion of the work and the teacher’s evaluation. Note that this course focuses on drawing, painting, and mixed media. It does not include digitally created art. Grade weighted upon successful completion of course.

707  Photography 1  1 Semester  .5 Credit  Grades 10, 11, 12
This is a foundation course for students who have an interest in learning photography as an art form. Art and photography will be discussed through traditional darkroom techniques, processing negatives, digital cameras, scanners, and by using Adobe Photoshop. It is helpful for students to have their own 35mm SLR camera that accepts film and a digital imaging device for the class. In addition, students will need to submit a studio fee of fifteen dollars to cover the film and photographic paper costs. Students may opt to take this course for Dual Enrollment and earn 3 transferable LCCC credits.
Digital and Pinhole Photography

**Prerequisite:** Completion of Photography 1 with a grade of “B” or better.

Digital and Pinhole Photography is a class that combines the digital photography world that changes daily with the historical photographic process of pinhole cameras. Students will make their own pinhole cameras from everyday objects and be introduced to traditional darkroom processes. Digital photography techniques will also be explored and developed throughout this course. Students will create digital images, collages, and prints by using digital cameras, scanners, printers, and photographs from their pinhole cameras. Students are required to provide their own digital camera for this class.

Photography 2

**Prerequisite:** Completion of Photography 1 with a grade of “B” or better.

Students will learn to take black and white photography and digital photography to a higher creative level in Photography 2. Printing techniques such as multiple printing, negative printing, and sabattier printing will be learned. Digital photography and Adobe Photoshop will be used to enhance images in order to create inkjet prints. Studio lighting techniques will also be introduced during this class. **It is helpful for students to have their own 35mm SLR camera that accepts film and a digital imaging device for the class.** In addition, students will need to submit a studio fee of fifteen dollars to cover the film and photographic paper costs. Students may opt to take this course for Dual Enrollment and earn 3 transferable LCCC credits.

Photography 3

**Prerequisite:** Completion of Photography 2 with a grade of “B” or better.

Photography 3 will focus on new lighting techniques and incorporate the dynamics of studio and environmental portraiture. Students will be introduced to the 4X5 view camera and its impact on the history of photography. Each student will focus on preparing a creative group of photographs to form their own series of images. Students will utilize scanners and Photoshop to prepare images for large-scale printing. **It is helpful for students to have their own 35mm SLR camera that accepts film and a digital imaging device for the class.** In addition, students will need to purchase film and printing paper at an average cost of forty dollars. Supplies for this class can be purchased at the school store.

Computer Art 1

This is an introductory course that focuses on using the computer as a means to create and design art projects. The course will include a variety of drawing, painting, and design projects using exciting art programs such as Adobe Illustrator, Adobe Photoshop, and Corel painter. Projects are approached from a fine art and commercial art perspective.

Graphics and Animation

**Prerequisite:** A grade of “B” or better in Computer Art 1

Graphics and Animation is an advanced computer art class that is designed to build upon the skills and programs learned in Computer Art 1. This course will also introduce students to 2D computer animation techniques. Students will learn new Photoshop techniques and complete large-scale graphic design and fine art projects through a creative perspective. Also, students will learn Adobe Flash techniques and will create motion graphics on the Flash timeline while working with frame-by-frame animation.

Art History AP

**Grades 10, 11, 12**

This is an excellent course for the college bound student since Art History is often required or taken as an elective at the university level. At the completion of this course, students may elect to take the Advanced Placement Art History examination, which can be used at many colleges for course credit. This course provides an overview of Western Art History from its primitive beginnings to the present. Examples of units studied are Ancient Egypt, Greece and Rome, the Renaissance, European Art, Impressionism, and American Art. Emphasis will be on looking at artworks—analyzing, interpreting, and criticizing how they were created, what they mean, and understanding the time period in which they were made. Classroom activities may include discussing slides or prints of artworks, group art criticism activities, and supplemental video instruction. This course is not designed for the average high school student. Rather, it is intended for the advanced and motivated student. **Grade weighted upon successful completion of course.**

Ceramics 1

**Grades 9, 10, 11, 12**

Ceramics 1 is a foundation course focusing on the structural techniques of hand-building, coiling, slab, pinch, and integrated with the sculptural technique of modeling. Students can expect to complete pieces utilizing these techniques centering on functional as well as non-functional concepts and finalized with various glazes and/or finishing approaches. Students may opt to take this course for Dual Enrollment and earn 3 transferable LCCC credits.
Ceramics 2  1 Semester  .5 Credit  Grades 9, 10, 11, 12
Prerequisite: Grade of “B” or better in Ceramics 1.
The skill of throwing on a potter’s wheel will be the goal of student concentration in the beginning stages of Ceramics 2. All assignments will involve advanced hand-building and the potter’s wheel in some fashion. Traditional pieces are to include vessels, teapots, mugs, jars, bowls, etc. Non-traditional pieces will appear sculptural and architectural in concept. Surface treatment, decorative techniques and the firing process will be highlighted.

Jewelry and Metals 1  1 Semester  .5 Credit  Grades 9, 10, 11, 12
Jewelry and Metals I is to be a metal working class aimed to build jewelry (functional and sculptural) and to explore the enameling process. Students will have the opportunity to design jewelry and to build that design using fabrication. A studio fee of approximately $45 will be expected to help defray the cost of sterling silver as the main building material. Students may opt to take this course for Dual Enrollment and earn 3 transferable LCCC credits.

Jewelry and Metals 2  1 Semester  .5 Credit  Grades 10, 11, 12
Prerequisite: Grade of “B” or better in Jewelry and Metals 1.
This course involves advanced techniques for hand building and lost wax casting. Advanced hand building techniques will involve multiple plate construction, surface manipulation and stone setting. The introduction to lost wax casting will center on functional as well as decorative constructions. Student emphasis will focus on the fusion of both techniques, to design and execute student work that is either functional or sculptural, and highly original and creative. A studio fee of $45.00 is required at the beginning of the course to help defray the cost of sterling silver as the main building material.

Traditional Crafts  1 Semester  .5 Credit  Grades 9, 10, 11, 12
A sampling course designed for the student who does not wish to concentrate on a specific medium, but to experiment with a wide variety of traditional craft methods. Centering on three-dimensional design, areas of sampling may be mosaics, 3-D assemblages, sculpture, basketry, tye-dye, etc.
THE 700 COURSES: MUSIC

The philosophy of the Music Department is to actively engage all students in responding creatively to life. The courses are tailored to students who have a genuine interest in music related subjects and provide students with opportunities for study of both performing and non-performing aspects of music. In addition, the courses are structured so as to meet the varied talents and abilities of our students.

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KEY:
B&C = Business and Communication Technology
Eng. & IT = Engineering and Industrial Technology
A & H = Arts and Humanities
H & HS = Health and Human Services
765  Concert Choir  2 Semesters  .5 Credit  Grades 9, 10
766  Concert Choir  2 Semesters  .5 Credit  Grades 11, 12

Prerequisite: Ability to match pitch.

NOTE: This option is only available to students who also enroll in Band or Orchestra.

Chorus rehearses three (3) periods per cycle. During class the student is provided an opportunity to develop the singing voice and to enhance the knowledge of music as applied to choral singing. There will be an emphasis on music literacy (including sight-singing skills) and continued development of responsible rehearsal behavior. Challenging choral literature from many historical periods and styles will be studied. Emphasis is on developing individual and ensemble musicianship skills. This group will perform in regularly scheduled concerts.

744  Concert Choir  2 Semesters  1 Credit  Grades 9, 10
745  Concert Choir  2 Semesters  1 Credit  Grades 11, 12

Prerequisite: Ability to match pitch.

Chorus rehearses six periods per cycle. During class the student is provided an opportunity to develop the singing voice and to enhance the knowledge of music as applied to choral singing. There will be an emphasis on music literacy (including sight-singing skills) and continued development of responsible rehearsal behavior. Challenging choral literature from many historical periods and styles will be studied. Emphasis is on developing individual and ensemble musicianship skills. This group will perform in regularly scheduled concerts.

--- Select Choir  2 Semesters  1 Credit  Grades 9, 10, 11, 12

This group rehearses six periods per cycle. The ensemble is comprised of soprano and alto voices. During class the student is provided an opportunity to develop the singing voice and to enhance the knowledge of music as applied to choral singing. There will be an emphasis on music literacy (including sight-singing skills) and continued development of responsible rehearsal behavior. Students will learn and perform challenging choral literature for the soprano and alto voice. Emphasis is placed on the development of individual and ensemble musicianship skills. This group will perform in regularly scheduled concerts. Any student who wishes to be placed in Select Choir must first select the Concert Choir course. Acceptance into Select Choir will be made after a successful audition, which will occur by the end of February of the previous year. **Students must enroll in Concert Choir first. After a successful audition, the student will be placed in Select Choir by the director and the student’s guidance counselor.**

761  Band  2 Semesters  .5 Credit  Grades 9, 10
762  Band  2 Semesters  .5 Credit  Grades 11, 12

NOTE: This option is only available to students who also enroll in Chorus.

Band rehearses 3 times per cycle. This course involves the various members of the percussion, woodwind, and brass families used within the marching and concert bands. This course is taught through a practiced application of basic principles laid down in elementary and middle school, plus the development of these skills to a higher level of understanding and achievement. Primary performances for this ensemble are Parkland varsity football games, local/regional parades, the Winter Holiday Program, the Spring Concert, and the Parkland High School Commencement Program. All band members will perform with the marching band for the fall marching season, which includes participation in band camp, which is held in August before the school term commences.

748  Band  2 Semesters  1 Credit  Grades 9, 10
749  Band  2 Semesters  1 Credit  Grades 11, 12

Band rehearses 6 times per cycle. This course involves the various members of the percussion, woodwind, and brass families used within the marching and concert bands. This course is taught through a practiced application of basic principles laid down in elementary and middle school plus the development of these skills to a higher level of understanding and achievement. Primary performances for this ensemble are Parkland varsity football games, local/regional parades, the Winter Holiday Program, the Spring Concert, and the Parkland High School Commencement Program. All band members will perform with the marching band for the fall marching season, which includes participation in band camp, which is held in August before the school term commences.

--- Wind Ensemble  1 Semester  .5 Credit  Grades 10, 11, 12

Wind Ensemble is a semester long course, rehearsing 6 days a cycle in the spring semester only. Students interested in performing in the Wind Ensemble must be enrolled in Concert Band and successfully pass an audition in January/February of the previous year or invitation by director. The group will be comprised of a smaller group of elite winds, brass, and percussion. Students will use the skills learned in Concert Band and expand upon these in greater detail. Advanced techniques studies include: intonation, independent part playing, chamber literature, et al. Students will also be exposed to upper level repertoire and techniques. The Wind Ensemble will perform in the Spring Band Concert.
The Honors Programs for Concert Choir, Band, and Orchestra

Admission to these classes is by audition only. The grade is weighted upon successful completion of the course and issued once during the student’s high school career.

Honors Concert Choir (1 Credit Option) 2 Semesters Grades 10, 11, 12
Students selected for the Honors Concert Choir program will meet all of the requirements of the Concert Choir course. Additionally, students will be an active member of the Parkland High School Chorale and perform with the Chorale at community events. Rehearsals take place after school at the discretion of the director. Successful audition is required each year of participation. Any student who wishes to be placed in the Honors Concert Choir must first select the non-Honors Concert Choir course. After a successful audition for Honors Concert Choir, the student will be placed in the Honors Concert Choir. The grade will be weighted upon successful completion of course and will be issued one time only.

Honors Concert Choir (1/2 Credit Option) 2 Semesters Grades 10, 11, 12
This option is only available to students who also enroll in Band or Orchestra. Students selected for the Honors Concert Choir (1/2 Credit Option) program will meet all of the requirements of the Concert Choir course. Additionally, students will be an active member of the Parkland High School Chorale and perform with the Chorale at community events. Rehearsals take place after school at the discretion of the director. Successful audition is required each year of participation. In order to take this class and receive an Honors credit, the student is required to schedule either regular .5 credit Band or .5 credit Orchestra, or the student is required to schedule .5 credit Honors Band or .5 credit Honors Orchestra. Any student who wishes to be placed in the Honors Concert Choir must first select the non-Honors Concert Choir course. After a successful audition for Honors Concert Choir, the student will be placed in the Honors Choir by the director and the student’s guidance counselor. The grade will be weighted upon successful completion of course and will be issued one time only.

Honors Band (1 Credit Option) 2 Semesters Grades 9, 10, 11, 12
Students selected for the Honors Band program will meet all of the requirements of the Band course. Additionally, students will perform in the Parkland High School Jazz Band ensemble and attend area jazz festivals and other community events. Students who do not play a jazz band instrument may satisfy the requirements of the course by participating in a small chamber ensemble such as flute choir, clarinet choir, and/or woodwind quintet. Rehearsals take place before and after school at the discretion of the director. Once a student has successfully auditioned for the Honors Band program, he/she need not re-audition in subsequent years, providing he/she continues to perform with the Jazz Band. Any student not previously a member of the Honors Band who wishes to be placed in the Honors Band must first select the non-Honors Band course. After a successful audition for Honors Band, the student will be placed in the Honors Band by the director and the student’s guidance counselor. The grade is weighted upon successful completion of course, and will be issued one time only.

Honors Band (1/2 Credit Option) 2 Semesters Grades 9, 10, 11, 12
This option is available only to students who also enroll in Concert Choir. This class meets three times per cycle for band rehearsal. Students selected for the Honors Band (1/2 Credit Option) will meet all of the requirements of the Band course. Additionally, students will perform in the Parkland High School Jazz Band ensemble and attend area jazz festivals and other community events. Students who do not play a jazz band instrument may satisfy the requirements of the course by...
participating in a small chamber ensemble such as flute choir, clarinet choir, and/or woodwind quintet. Rehearsals take place before and after school at the discretion of the director. Once a student has successfully auditioned for the Honors Band program, he/she need not re-audition in subsequent years, providing he/she continues to perform with the Jazz Band. In order to take this class and receive an Honors credit, the student is required to schedule either regular .5 credit Concert Choir or .5 Honors Concert Choir. Any student not previously a member of the Honors Band who wishes to be placed in the Honors Band must first select the non-Honors Band course. After a successful audition for Honors Band, the student will be placed in the Honors Band by the director and the student’s guidance counselor. The grade is weighted upon successful completion of course and will be issued one time only.

Honors Orchestra (1 Credit Option) 2 Semesters Grades 9, 10, 11, 12
Prerequisite: Audition with instructor and at least 1 credit in Orchestra (except 9th grade students)
Students selected for the Honors Orchestra program will meet all of the requirements of the Orchestra course. Additionally, students will be active members of Parkland High School’s Strolling Strings and Chamber Ensembles, and perform at community events. Rehearsals take place weekly after school. Once a student has successfully auditioned for the Honors Orchestra program, he/she need not re-audition in subsequent years, providing he/she continues to perform with the Strolling Strings. All students auditioning must take the non-honors orchestra course. After a successful audition for Strolling Strings, the student will be placed in the Honors Orchestra by the director and the student’s guidance counselor. The grade is weighted upon successful completion of course and will be issued one time only, which will be in the junior year.

Honors Orchestra (1/2 Credit Option) 2 Semesters Grades 9, 10, 11, 12
This option is available only to students who also enroll in Concert Choir. Students meet three times per cycle for orchestra rehearsal. Students selected for the Honors Orchestra program will meet all of the requirements of the Orchestra course. Additionally, students will be an active member of Parkland High School’s Strolling Strings and Chamber Ensembles, and perform at community events. Rehearsals take place after school at the discretion of the director. Once a student has successfully auditioned for the Honors Orchestra program, he/she need not re-audition in subsequent years, providing he/she continues to perform with the Strolling Strings. In order to take this class and receive an Honors credit, the student is required to schedule either regular .5 credit in Concert Choir or Honors Concert Choir. After a successful audition for Strolling Strings, the student will be placed in the Honors Orchestra by the director and the student’s guidance counselor. The grade is weighted upon successful completion of course and will be issued one time only, which will occur in the junior year.

ADDITIONAL COURSE OFFERINGS:

771 Introduction to Strings 1 Semester .5 Credit Grades 9, 10
This semester long course, which meets daily for a single period in the first semester, is designed for students who are interested in learning about the violin, viola, cello, and/or string bass. Students will learn note reading, basic fundamentals and techniques involved in sound production, and perform basic repertoire. No previous music experience is required but is certainly beneficial. All instruments and supplementary materials will be provided by the school.

772 Intermediate Strings 1 Semester .5 Credit Grades 9, 10
Prerequisite: Any of the following: 1- Intro. to Strings (771) or the equivalent, OR 2- basic, practical knowledge reading and performing written music notation (conventional or lead sheet) on some orchestra instrument (violin, viola, cello, string bass, etc.), OR 3- Teacher recommendation for students who can demonstrate proficiency on an orchestra instrument.
This semester long course, which meets daily for a single period in the second semester, will build on students’ individual skills with an orchestra instrument while preparing them for participation in an orchestra. Students will enhance their note reading, basic fundamentals and techniques involved in sound production, and perform basic repertoire. As a result of participation in this course, students will be prepared for participation in the PHS Orchestra the following school year. All instruments and supplementary materials will be provided by the school.

753 Piano 1 1 Semester .5 Credit Grades 9, 10, 11, 12
Class meets daily. This class is designed for the beginning student who wishes to learn the fundamentals of keyboarding. The student will demonstrate adequate motor skill development through the performance of a variety of repertoire. The Yamaha Electronic Keyboard lab facilities will be used for both individual and group instruction. Students who have had more than one year of piano instruction should not take this course.
<table>
<thead>
<tr>
<th>Course</th>
<th>Length</th>
<th>Credits</th>
<th>Grade Levels</th>
</tr>
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<tbody>
<tr>
<td><strong>Piano 2</strong></td>
<td>1 Semester</td>
<td>.5 Credit</td>
<td>Grades 9, 10, 11, 12</td>
</tr>
<tr>
<td><strong>Music Theory 1</strong></td>
<td>1 Semester</td>
<td>.5 Credit</td>
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<td><strong>Music Theory 2</strong></td>
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<tr>
<td><strong>Music Theory AP</strong></td>
<td>2 Semesters</td>
<td>1 Credit</td>
<td>Grades 10, 11, 12</td>
</tr>
<tr>
<td><strong>Music Production 1</strong></td>
<td>1 Semester</td>
<td>.5 Credit</td>
<td>Grades 10, 11, 12</td>
</tr>
<tr>
<td><strong>Music Listening and Literature Honors</strong></td>
<td>2 Semesters</td>
<td>1 Credit</td>
<td>Grades 11, 12</td>
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</table>

**Piano 2**

Prerequisite: Piano 1 or the equivalent of one year of private lessons.

This course is a continuation of Piano 1. The student will continue to progress through more difficult repertoire. Pianos are available for student practice. Students with 1 ½ or more years of piano study should not take this course.

**Music Theory 1**

Recommended Prerequisites: Performing ability on an instrument or vocal music reading ability.

Students become familiar with musical terminology, learn how to write musical manuscript, listen to and construct diatonic intervals, listen to and construct all of the major and relative minor scale forms, and listen to and construct the primary and secondary triads. Aural skills will be developed by singing with syllables and the use of rhythmic and melodic dictation. Part writing will be introduced and applied in writing exercises.

**Music Theory 2**

Recommended Prerequisites: Successful completion of Music Theory 1, or the equivalent skills, as approved by the instructor.

Students continue their study of harmony using primary and secondary chords in root position and inversions, writing chord progressions in simple keyboard and four-part (SATB) textures. Non-harmonic tones and simple melodic form will be introduced and students will use these, and other skills, to analyze music. Aural skills/ear training continues with singing (using solfège syllables) major and minor melodies, canons, and simple four-part chorales, as well as simple melodic dictation.

**Music Theory AP**

Prerequisite: Music Theory 2

Students will be required to read, notate, compose, perform and listen to music. The further development of aural skills (sight-singing, dictation) is a primary objective, as well as continuing the study of harmony to include modes, secondary dominants, modulation, and more expressive formal structures. Students will listen to musical works attentively and analytically, and will create music of their own to demonstrate concepts presented. Performance using singing and students’ primary performance media will also be a part of the class. The College Board AP Program course outline will be followed.

**Music Production 1**

Prerequisite: Any of the following: 1- Music Theory 1 or the equivalent, OR 2- basic, practical knowledge reading and performing written music notation (conventional or lead sheet) on some instrument (piano, guitar, trumpet, etc.), OR 3- Teacher recommendation for students who can demonstrate an alternative mode of musically expressing themselves (i.e. vocalist, rapper, creator/producer beats/mashups using software, etc.).

This semester long course will introduce students to some of the most commonly used software and hardware tools for producing music for the marketplace, including Digital Audio Workstation (DAW) software, audio and MIDI recording and editing, electronic keyboard, audio interface, DSP effects (reverb, EQ, etc.), microphone technique, and music notation software for “lead sheets.” The class will stress application and creative content, using a series of projects to give students exposure to music production tasks such as recording various kinds of signals (live instruments and MIDI), using electronic instruments, basic song arranging, and equipment configuration. The ideal student for this course has interest in recording music of all kinds, possesses some experience playing in either a popular (rock, jazz, etc.) or classical tradition, and is comfortable reading either chord charts or conventional music notation. The student should discuss this class with a member of the music faculty.

**Music Listening and Literature Honors**

Prerequisites: Grade of “B” or better in English and strong interest and theory background in subject area.

Music Listening and Literature Honors is an intensive course in developing perceptive listening of music literature through study of structure and style of musical composition, score reading, social and historical context of music making. Outside listening assignments are required, as are attendance at live concerts. General objectives of the course are:

1. To develop the art of perceptive listening in the study of music literature.
2. To develop individual thinking on a more advanced and independent level.
3. To promote a deeper understanding of structure and style in musical composition.
4. To develop an understanding of the social and historical context of music making.

Grade weighted upon successful completion of course.
THE 800 COURSES: FAMILY AND CONSUMER SCIENCE

The mission of Parkland High School’s Family and Consumer Sciences department is to strengthen individuals and families for lifelong participation in the home, community, and society by teaching technical and social skills with a practical application resulting in rational thinking. Focusing on planning, management, and decision-making, our Family and Consumer Sciences program addresses current issues of human development and the family, home management and family economics, foods and nutrition, clothing and textiles, and housing and living environments.

CAREER PATHWAYS:

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<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credit</th>
<th>Grade Level(s)</th>
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<th>Eng. &amp; IT</th>
<th>A&amp;H</th>
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KEY:
B&C = Business and Communication Technology
Eng. & IT = Engineering and Industrial Technology
A & H = Arts and Humanities
H & HS= Health and Human Services

831 Fashion & Wardrobe Construction
1 Semester .5 Credit Grades 9, 10, 11, 12
This course will explore the world of fashion by investigating fibers and textiles as well as constructing wearable garments or accessories. Clothing styles, fashion trends, and ways to enhance personal appearance will be explored. Instruction includes consumer hints for pattern and fabric choices, reading instructions with patterns, preparing the fabric and sewing from a commercial pattern. Students are required to purchase their own patterns, fabric and thread for personal projects. Several types of sewing machines (traditional, computerized, and serger) are available for student use to construct the projects. During the first 6-day cycle of class, parents and students must sign and return the materials contract because students are required to purchase supplies to participate in this course.

846 Fashion Design/Merchandising
1 Semester .5 Credit Grades 9, 10, 11, 12
The world of fashion is a glamorous one. The fast pace of fashion offers challenges to the person who is creative, flexible, and observant. In this course, students will explore careers available in the area of fashion design and merchandising. Multiple student projects incorporating current fashion and fashion history will help students develop a better understanding of fashion designers and
designing. Various individual projects for garment design are completed. A group project in fashion merchandising will allow students to understand the business side of the fashion world.

832 Creative Crafts 1 Semester .5 Credit Grades 9, 10, 11, 12
This craft program is designed to allow each student to experience many different projects through various mediums such as wood, paper, fabrics, felt, yarn, and thread. Throughout the semester students will complete teacher-directed and guest crafter-directed projects. Each student is required to create a minimum of two independent projects that he/she selects, purchases, and brings to class to complete. All projects are graded on a rubric. During the first 6-day cycle of class, parents and students must sign and return the materials contract because students are required to purchase supplies to participate in this course.

833 Interior Design 1 Semester .5 Credit Grades 9, 10, 11, 12
This course is designed for students interested in learning how to organize their present and future living space. Students will study housing designs, the elements and principles of design, and learn how to develop floor plans and elevations. Computer technology is incorporated into the course to create floor plans, elevations and 3-D visualizations of rooms. Students will learn to organize and design a small space area such as a college dormitory room, plan for the equipment and supplies needed for the area, and create a budget to understand the cost involved.

834 Basic Foods 1 Semester .5 Credit Grades 9, 10, 11, 12
Prepare delicious foods, build your nutrition knowledge, learn about food safety, develop consumer knowledge, understand basic cooking terms in recipes, and taste test new foods in this introductory food course. Foods are prepared in a creative way following the USDA Dietary Guidelines. Special emphasis is given to the use of small electrical equipment used in the kitchen. Students will begin to learn the basics of preparing balanced and appetizing meals. Students will develop skills that will help prepare them to work competently with foods at home with the family. Basic Foods must be completed with a grade of “C” or better before enrolling in American or International Foods.

836 American Foods 1 Semester .5 Credit Grades 9, 10, 11, 12
Prerequisite: Grade of “C” or better in Basic Foods or in LCTI’s Culinary Program.
The waves of immigration to this country have lent a great variety to the cuisine of the USA. In American Foods, the student prepares “typical” foods from all sections of the country. Examination of customs, traditions, folklore, famous restaurants, and chefs are researched. A highlight of this course is a competition in which students utilize their creative flair to develop an appealing, nutritious, and marketable fast food, a truly American phenomenon.

837 International Foods 1 Semester .5 Credit Grades 9, 10, 11, 12
Prerequisite: Grade of “C” or better in Basic Foods or in LCTI’s Culinary Program.
This advanced level course is designed to explore foods and cultures from around the world. Students work in groups to research the culinary traditions of a country of their choice, and plan and prepare a traditional meal. The rich culinary heritage of Italy and China are explored, as well as a unit on advanced baking techniques.

838 Nutrition for Fitness 1 Semester .5 Credit Grades 9, 10, 11, 12
In this course, students will learn that nutrition plays an integral part in developing a lifestyle that leads to wellness and personal fitness. Making sure you get proper nutrition involves understanding what nutrients are contained in foods and how your body uses them. Students will study the six basic nutrients in detail and use food preparation skills to prepare nutritional recipes that are appropriate to the current aspect of nutrition being taught. Completing a personal dietary analysis project will help students make personal nutritional goals that will benefit them now and in the future.

839 Independent Living 1 Semester .5 Credit Grades 9, 10, 11, 12
Independent Living is a course designed to give students a realistic view of life after high school and to explore issues related to survival in the adult world. Students will examine the processes of formulating goals and understanding their values in order to make decisions for everyday life. Units studied include housing, credit, budgeting and job seeking skills. These learning competencies will be accomplished through individual and group projects, computer technology, and simulated experiences. This course is recommended for Juniors and Seniors.

841 Parenting 1 Semester .5 Credit Grades 9, 10, 11, 12
This course investigates parenthood as a possible life goal and examines reasons for having or not having children. Emphasis is placed on pre-natal health, postpartum care and baby’s development during the first two years of life. Instructional techniques include observations, video case studies and interactions that simulate real life situations. By wearing the “Empathy Belly” during class, males and females experience the physical conditions of a full term pregnancy. Through the computerized “Baby Think It Over” project, students develop their skills needed to care for a new baby. During the first 6-day cycle of class, students and parents must sign the
permission contract for “Baby Think It Over” and return it to the teacher in order to participate in the course. “Baby Think It Over” is a required project for this course.

**842  Child Development**  
1 Semester  .5 Credit  
**Grades 9, 10, 11, 12**  
This course is designed for male and female students who like children and desire to know more about how they grow and develop. This course will benefit all students interested in any career involving preschool-aged children. Through the use of theory, projects, observations, field trips and participation in a three to four week nursery school laboratory, students will be able to learn more about the typical behavior of preschool-aged children. The nursery school will be held in the specially designed nursery school facility in the high school. Students can further their work with preschool-aged children in the Child Development Laboratory course.

**843  Child Development Laboratory**  
1 Semester  .5 Credit  
**Grades 9, 10, 11, 12**  
**Prerequisite: Grade of “C” or better in Child Development**  
This course is designed as a follow up study to the Child Development Course. It is offered second semester to students (male and female) who want the experience of actually working in a nursery school program. The Parkland nursery school laboratory is a specially designed facility located within the high school building. The nursery school operates three days per week for twelve weeks during the second semester. Students will have the responsibility of planning activities for the laboratory, participating as a preschool teacher, and interacting positively with the children. This course is recommended to all students who are considering a career in which preschool aged children are involved.

**844  Child Development Management**  
1 Semester  .5 Credit  
**Grades 11, 12**  
**Prerequisite: Grade of “B” or better in Child Development and Child Development Laboratory and teacher recommendation.**  
This course is designed for the student who has completed both the Child Development and Child Development Laboratory courses. It is tailored for students who are seriously interested in the organization and management of a preschool program and who may be contemplating a career in a child care-related field or in an elementary school setting. Children’s physical, emotional, social and intellectual needs are studied through child observation and continuing to participate as a preschool teacher. Exhibiting patience and flexibility, the student will guide children in educational activities. Special areas of study include career preparation through creating a portfolio, creating and presenting developmentally-appropriate learning activities for children, and handling challenging situations with children. The culminating class project is planning and participating in the annual closing program where children and teens work together to present finger plays and songs on the PHS stage.
THE 900 COURSES: TECHNOLOGY AND ENGINEERING

Technology is part of everyone’s world. Some people think technology is a series of abstract concepts and devices understood by only a few. Nothing could be further from the truth. Technology is human innovation in action. People re-design or “engineer” the natural world to fit their needs or wants. Technology Education is the study of this human adaptive process through a laboratory-centered, hands-on and minds-on, activity-based approach. In doing so, we employ math, science and technology principles and evaluate their resulting impacts. A quick look at the Parkland’s Technology and Engineering Department’s course descriptions will reveal these principles and career exploration opportunities for future engineers, engineering technicians, architects, etc.

These are some of the experiences that students will gain through Parkland’s Technology and Engineering program:

- Designing, developing, and utilizing technological systems
- Open-ended, problem-based design activities
- Applying technological knowledge to real world experiences
- Invention and other topics dealing with human innovation
- Working individually as well as in teams to solve problems

Technology and Engineering Elective Sequence (½ Credit, Semester Courses):

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<th>Level 1 Courses</th>
<th>Level 2 Courses</th>
<th>Level 3 Courses</th>
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<tr>
<td>901 Intro to Drafting, Design, and CADD</td>
<td>902 Residential Architecture</td>
<td>903 Advanced Architecture (if this course isn’t available, 998 in the PLTW sequence may be used as an alternate)</td>
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<td>991 PLTW Intro. to Engineering Design may be substituted as prerequisite for 902, 906, 911, 918, or 909</td>
<td>906 3-D Computer Design &amp; Animation</td>
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<td>916 Basic Electronics</td>
<td>911 Production Materials &amp; Processes</td>
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<td>918 Transportation &amp; Energy Technology</td>
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<td>909 Innovation and Invention</td>
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<tr>
<td>981</td>
<td>Computer Science Principles AP</td>
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<tr>
<td>983</td>
<td>Cybersecurity Honors</td>
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<td>941</td>
<td>Principles of Biomedical Science Honors</td>
<td>1</td>
<td>9, 10</td>
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<td>942</td>
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<td>10</td>
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<td>943</td>
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<td>11</td>
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<tr>
<td>944</td>
<td>Biomedical Innovation Honors</td>
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<td>12</td>
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<td>991</td>
<td>Introduction to Engineering Design Honors</td>
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<td>9, 10, 11, 12</td>
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<td></td>
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<tr>
<td>992</td>
<td>Principles of Engineering Honors</td>
<td>1</td>
<td>10, 11, 12</td>
<td>x</td>
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<td>994</td>
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<td>993</td>
<td>Computer Integrated Manufacturing Honors</td>
<td>1</td>
<td>10, 11, 12</td>
<td>x</td>
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<td>998</td>
<td>Civil Engineering and Architecture Honors</td>
<td>1</td>
<td>10, 11, 12</td>
<td>x</td>
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<td>996</td>
<td>Environmental Sustainability Honors</td>
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<td>x</td>
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<tr>
<td>997</td>
<td>Aerospace Engineering Honors</td>
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<tr>
<td>995</td>
<td>Engineering Design and Development Honors</td>
<td>1</td>
<td>11, 12</td>
<td>x</td>
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</table>

**KEY:**

B& C = Business and Communication Technology
Eng. & IT = Engineering and Industrial Technology
A & H = Arts and Humanities
H & HS= Health and Human Services

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**901 Intro to Drafting, Design, and CADD**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credits</th>
<th>Grade Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.5</td>
<td>9, 10, 11, 12</td>
</tr>
</tbody>
</table>

Students should not take this course if they plan to take Introduction to Engineering Design (#991). Take a varied look into the many facets of drafting and computer aided design (CADD). This course will give students a broad-based exposure to skills that will help them become future designers in various fields. Activities include exercises in mechanical drawing, drawing geometry, multi-view projection, and 3-dimensional representation through computer-aided design as well as traditional drawing methods. After completing this course, a variety of advanced courses may be elected.

**902 Residential Architecture**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credits</th>
<th>Grade Levels</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>.5</td>
<td>10, 11, 12</td>
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</tbody>
</table>

Prerequisite: Intro to Drafting, Design, and CADD or Intro. To Engineering Design (PLTW)

This course is a broad description of the architecture and construction of homes in our region. Students are given limited funds and a building lot to creatively design a functional, yet aesthetic home. They are asked to produce a floor plan, scaled model, and various sketches of their creation. Topics of study include interior home layout, structural concerns, site considerations, cost factors, home styles, human factors, drawing and model-making.

**903 Advanced Architecture**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credits</th>
<th>Grade Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.5</td>
<td>10, 11, 12</td>
</tr>
</tbody>
</table>

Prerequisite: Residential Architecture

This course expands upon concepts covered in 902. A similar problem solving design approach will be employed. Expanded and new topics include structural details, beam and loading calculations, interior design, elevations, foundation systems and alternative materials. Students will be asked to complete a fully workable set of plans using 3-D computer modeling software utilized by architectural design professionals.
906  3-D Computer Design & Animation
   1 Semester  .5 Credit   Grades 10, 11, 12
Prerequisite: Intro to Drafting, Design, and CADD or Intro. To Engineering Design (PLTW)
Use the “upper end” of CADD and a top quality gaming software to produce 3-D computer models of houses, automotive inventions, cartoon characters, people, etc. Use geometric primitives with Boolean operators to create shapes from scratch or grow your 2-D CADD drawings into 3-D realistic looking images. Then create quality computer presentations by texturing, rendering and animating the images. This presentation tool is great for selling your design creations to a client.

911  Production Materials & Processes
   1 Semester  .5 Credit   Grades 9, 10, 11, 12
Prerequisite: Intro to Drafting, Design, and CADD or Intro to Engineering Design (PLTW)
Did you ever wonder how cars, roller blades, mag wheels and other products are manufactured? Through computer technologies, students will explore Robotics, Computer Numerical Control and Computer Design/Manufacturing processes. Gain hands-on exposure to a variety of manufacturing materials used in today’s world. Students will construct projects using a design process in this hands-on course.

913  Manufacturing Systems
   1 Semester  .5 Credit   Grades 10, 11, 12
Prerequisite: Production Materials & Processes
Use your skills from course #911 in combination with CNC, Robotics, and Quality Control to set up and manufacture products in a cooperative learning environment. This course will offer advanced topics extending beyond the scope of course #911 and is currently implementing a Science, Technology, Engineering and Math (STEM) Grant in Guitar Manufacturing. The National Science Foundation STEM Guitar Project provides innovative manufacturing techniques in combination with the science, math and engineering principles involved with a solid body electric guitar. There is an approximate $175.00 lab fee for the course and the student will design, wire, manufacture, and complete his/her own electric guitar.

916  Basic Electronics
   1 Semester  .5 Credit   Grades 9, 10, 11, 12
Recommended Prerequisite: Successful completion of Algebra 1
This project based course focuses on how electronics affect our lives and also on our dependence upon its constant development. Electricity drives all of the modern technology that we use at home and in school. Students will gain a better understanding of how electricity and electronic circuits work through lab experiments as well as through computer simulations and other instructional media.

918  Transportation and Energy Technology
   1 Semester  .5 Credit   Grades 9, 10, 11, 12
Prerequisite: Intro to Drafting, Design, and CADD or Intro to Engineering Design (PLTW)
In this course, students use the technological method to design and build models of transportation and energy systems. Creating working models of planes, boats, race cars and rockets enable students to apply math, science, and technology concepts as they compete to engineer the best possible system.

909  Innovation and Invention
   1 Semester  .5 Credit   Grades 9, 10, 11, 12
Prerequisite: Intro to Drafting, Design and CADD or Intro to Engineering Design
Students learn the Creative Problems Solving (CPS) method used in many of today’s competitive companies and organizations. The application of CPS techniques, along with machines, materials, and information resources, will result in the processes of invention and innovation to solve various technological problems. Students will invent new games and toys and will produce a prototype of their invention.
Project Lead the Way (PLTW) provides students with rigorous and innovative Science, Technology, Engineering, and Mathematics (STEM) education curricular programs at the high school level. Developed by PLTW teachers, university educators, engineering professionals, and school administrators, this transformational program promotes high levels of critical thinking, creativity, innovation and real-world problem-solving skills in students. The curriculum, when combined with traditional mathematics and science courses in high school, introduces students to the scope, rigor and discipline of studies in specific STEM related fields prior to entering college.

All PLTW courses employ the use of Learning Management System along with traditional instruction. This simply means that the courses are a blend of internet delivered curriculum and teacher facilitated instruction and activities. These courses, however, are not self-paced. Experiments, classroom assignments, homework, and various computer files are submitted and received electronically in the form of Microsoft WORD, EXCEL, and/or POWER POINT files. We strongly suggest that students who are interested in PLTW have good file management skills and are also able to access the internet from home.

Parkland High School offers three PLTW programs, including PLTW Computer Science, PLTW Biomedical Science, and PLTW Engineering. These courses are offered at the Honors or AP levels as indicated within the course titles. Below are the PLTW pathways for each program that show the sequence that students should follow when registering for these courses:

**Project Lead the Way: Computer Science**

| Suggested Sequence (Computer Science Essentials- .5 Credit, ½ Year Course, Weighted Grade; All Other Courses- 1 Credit, Full Year Courses, Weighted Grades) |
|---|---|---|---|
| 9th Grade Foundation Course (1/2 year) | 10th Grade Foundation Course (981) Computer Science Principles AP | 11th Grade Foundation Course (982) Computer Science- A AP | 12th Grade Capstone Course (983) Cybersecurity Honors |
| Computer Science Essentials Honors | | | |

**980** Computer Science Essentials Honors

1 Semester .5 Credit Grades 9, 10, 11, 12

Prerequisite: Successful completion of Algebra 1.
In this introductory course of the PLTW Computer Science program, students learn fundamental computer science concepts using MIT App Inventor and Python. The first unit of the course utilizes MIT App Inventor to create basic apps that rely on the concepts of event-driven programming, branching and iteration, variables, and abstraction. The second unit of the course builds on previous experiences with MIT App Inventor. Students will modify apps to exchange data over the Web and create a crowdsourcing app. Students will also discuss ethical, safe behavior and cybersecurity concepts related to the Internet. Additionally, students will learn how to program in Python by creating simulations of games. **Grade weighted upon successful completion of course.**

**981** Computer Science Principles AP

2 Semesters 1 Credit Grades 10, 11, 12

Prerequisite: Computer Science Essentials Honors (980)
This second course in the PLTW Computer Science program aims to develop computational thinking, to generate excitement about the field of computing, and to introduce computational tools that foster creativity. Students practice problem solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and
other professional skills. This course is endorsed by the College Board, giving students the opportunity to take the Computer Science Principles (CSP) AP exam for college credit. **Grade weighted upon successful completion of course.**

**982 Computer Science- A AP**

2 Semesters 1 Credit Grades 10, 11, 12

**Prerequisite:** Computer Science Essentials Honors (980) and Computer Science Principles AP (981)

Computer Science- A teaches students Java and authentic Android App development. Students will receive a primer in the basics of Java programming language and object oriented programming using Eclipse and Android Studio. Students will be able to incorporate their own code into fully functioning apps. Students will also design and implement apps that incorporate user interface elements, Google’s Android libraries, and the use of back-end databases. Students will also learn game development using the LibGDX game development framework. The culminating project consists of students creating their own fully functioning app. This course aligns with the Computer Science- A AP course, and students will have the option to take the AP exam at the end of this course. **Grade weighted upon successful completion of course.**

**983 Cybersecurity Honors**

2 Semesters 1 Credit Grades 11, 12

**Prerequisites:** Successful completion of Computer Science Essentials Honors (980) and Computer Science Principles AP (981); Successful completion of OR concurrent enrollment in Computer Science-A AP (982)

This course exposes high school students to the ever growing and far reaching field of cybersecurity through problem-based learning, where students role-play as cybersecurity experts and train as cybersecurity experts do. It also connects to the National Cybersecurity Workforce Framework (also known as the NICE Framework or NCWF), which incorporates many of the big ideas and learning objectives covered in Computer Science Principles AP and Computer Science A AP. The course gives students a broad exposure to the many aspects of digital and information security, while encouraging socially responsible choices and ethical behavior. It inspires algorithmic thinking, computational thinking, and especially, “outside-the-box” thinking. Students explore the many educational and career paths available to cybersecurity experts, as well as other careers that comprise the field of information security.

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**Project Lead the Way: Biomedical Science**

**Suggested Sequence (1 Credit, Full Year Courses, Weighted Grades)**

<table>
<thead>
<tr>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
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<tbody>
<tr>
<td>Foundation Course</td>
<td>Foundation Course</td>
<td>Foundation Course</td>
<td>Capstone Course</td>
</tr>
<tr>
<td>Principles of Biomedical Science Honors</td>
<td>Human Body Systems Honors</td>
<td>Medical Interventions Honors</td>
<td>Biomedical Innovation Honors</td>
</tr>
</tbody>
</table>

**941 Principles of Biomedical Science Honors**

2 Semesters 1 Credit Grades 9, 10

**Prerequisite:** Concurrently taking Honors Biology or full completion of Biology with a “C” or better.

In the introductory course of the PLTW Biomedical Science program, students explore concepts of biology and medicine to determine factors that led to the death of a fictional person. While investigating the case, students examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged the person’s life. The activities and projects introduce students to human physiology, basic biology, medicine, and research processes while allowing them to design their own experiments to solve problems. **Grade weighted upon successful completion of course.**

**942 Human Body Systems Honors**

2 Semesters 1 Credit Grade 10

**Prerequisite:** Grade of “C” or better in Principles of Biomedical Science Honors

Students in Human Body Systems will examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis. Exploring science in action, students build organs and tissues on a skeletal Maniken®; use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration; and take on the roles of biomedical professionals to solve real-world medical cases. **Grade weighted upon successful completion of course.**
**Medical Interventions Honors**

2 Semesters  
1 Credit  
Grade 11

Prerequisite: Grade of “C” or better in Human Body Systems Honors

In Medical Interventions, students follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail. Through real-world cases, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. **Grade weighted upon successful completion of course.**

**Biomedical Innovation Honors**

2 Semesters  
1 Credit  
Grade 12

Prerequisite: Grade of “C” or better in Medical Interventions Honors

In the final course of the PLTW Biomedical Science sequence, students build on the knowledge and skills gained from previous courses to design innovative solutions for the most pressing health challenges of the 21st century. Students address topics ranging from public health and biomedical engineering to clinical medicine and physiology. They have the opportunity to work on an independent design project with a mentor or advisor from a university, medical facility, or research institution. **Grade weighted upon successful completion of course.**

### Project Lead the Way: Engineering

**Suggested Sequence (1 Credit, Full Year Courses, Weighted Grades)**

<table>
<thead>
<tr>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
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<tbody>
<tr>
<td>Foundation Course</td>
<td>Foundation Course</td>
<td>Specialization Courses</td>
<td>Capstone Course</td>
</tr>
<tr>
<td>Math Prereq: Completion of Algebra 1 with a high “B” or better; “B” or better in all other Algebra courses</td>
<td>Math Prereq: Grade of “B” or better in all Algebra courses taken</td>
<td>Math Prereq: Geometry and a grade of “B” or better in all Algebra courses taken</td>
<td>Math Prereq: “B” or better in Geometry</td>
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</table>

*Students may choose a specialty course from the next section to the right (under 11th grade) if schedule permits*

*Students may choose a specialty course from the previous section to the left if schedule permits*
991 Introduction to Engineering Design Honors

2 Semesters 1 Credit  Grades 9, 10, 11, 12

Math Prerequisites: Completion of Algebra 1 with a high “B” or better; “B” or better in all other Algebra courses.

This is the first course in the Project Lead the Way Engineering sequence. IED is an introductory look into the design and creation of modern products. Students develop an understanding of a 6-step engineering design process and how it may be used for invention and innovation of everyday products. Blueprint reading, sketching for design, Computer Aided Design, Mathematical and Geometric relationships, visual and functional analysis, teamwork and presentation skills are some of the unit topics covered in this course. Additionally, leading parametric modeling software named Autodesk Inventor is employed to create 3-D computer models of mechanical products and to analyze their physical properties. Students who complete the course and the national exam with high achievement are eligible to receive college credits from the Rochester Institute of Technology and several other colleges for a fee. Grade weighted upon successful completion of course.

992 Principles of Engineering Honors

2 Semesters 1 Credit  Grades 10, 11, 12

Math Prerequisite: Currently taking or previously completed Geometry and a grade of “B” or better in Algebra 1 and all other Algebra courses taken at the high school level.

Additional Prerequisite: Grade of “C” or better in Intro to Engineering Design Honors.

This is the second course in the Project Lead the Way program. The main purpose of this course is to experience, through theory and hands-on problem-solving activities, what engineering is all about and to answer the question: “Is a career in engineering or engineering technology for me?” By exploring various technology systems and manufacturing processes, students learn how engineers and technicians use math, science and technological resources in an engineering problem solving process to benefit people. Units of study include: mechanisms, fluid dynamics, electrical and control systems, statics, material properties, and kinematics. Students who complete the course and the national exam with high achievement are eligible to receive college credits from the Rochester Institute of Technology and several other colleges for a fee. Grade weighted upon successful completion of course.

994 Digital Electronics Honors

2 Semesters 1 Credit  Grades 10, 11, 12

Math Prerequisite: Currently taking or previously completed Geometry and a grade of “B” or better in all Algebra courses taken at the high school level.

Additional Prerequisite: Grade of “C” or better in Intro to Engineering Design Honors (991).

This is a course in applied logic as it is used in electronic circuits and devices. Computer simulation software, bread boarding and actual wiring is used to design and test digital circuitry. This course requires the student to have a solid background in Algebra. The rules, laws and theorems of Boolean algebra and truth tables will be used to manipulate and simplify logic expressions. Some topics include: Basic Electron Theory, Simple Circuits, Ohm’s Law, Capacitance, Frequency, Number Systems, Gates, Combinational Circuit Design, Binary Addition, Flip-Flops, Shift Registers and Counters, Families and Specifications, and Microprocessors. Students who complete the course and the national exam with high achievement are eligible to receive college credits from the Rochester Institute of Technology and several other colleges for a fee. Grade weighted upon successful completion of course.

993 Computer Integrated Manufacturing Honors

2 Semesters 1 Credit  Grades 10, 11, 12

NOTE: This course is offered every other year. It will be available to students in the 2019 – 2020 school year.

Math Prerequisite: Currently taking or previously completed Geometry and a grade of “B” or better in all Algebra courses taken at the high school level.

Additional Prerequisite: Grade of “C” or better in Intro to Engineering Design Honors (991).

The purpose of this course is to teach the fundamentals of computerized manufacturing technology. It builds on the solid modeling skills developed in the 991 IED course. Students use 3-D computer software to solve design problems. They assess their solutions through mass property analysis (the relationship of design, function and materials), modify their designs, and use prototyping equipment to produce 3-D models. The course includes the following concepts: Computer modeling with 3-D software for property analysis; Computer Numerical Control (CNC); Computer-Aided Manufacturing (CAM); Rapid Prototyping; Robotics; Flexible Manufacturing Systems; Programmable Logic Control; CIM Cell Construction. Students who complete the course and the national exam with high achievement are eligible to receive college credits from the Rochester Institute of Technology and several other colleges for a fee. Grade weighted upon successful completion of course.
998  Civil Engineering and Architecture Honors

2 Semesters  1 Credit  Grades 10, 11, 12

NOTE: This course is offered every other year. It will be available to students in the 2019–2020 school year.

Math Prerequisite: Currently taking or previously completed Geometry and a grade of “B” or better in all Algebra courses taken at the high school level.

Additional Prerequisite: Grade of “C” or better in Intro to Engineering Design Honors (991) or in Residential Architecture (902).

This overview course emphasizes the inter-relationship and mutual dependence of the civil engineering and architecture fields. Students use state-of-the-art software to solve real problems and apply knowledge to hands-on projects and activities. For example, students will experience the responsibilities of architects and civil engineers by developing and implementing plans for a playground/park or vacation home. By the end of the course, students will be able to present a comprehensive plan including three-dimensional renderings of buildings, building improvements, zoning and ordinance constraints, infrastructure requirements, and other essential project documentation. Students who complete the course and the national exam with high achievement are eligible to receive college credits from the Rochester Institute of Technology and several other colleges for a fee. Grade weighted upon successful completion of course.

996  Environmental Sustainability Honors

2 Semesters  1 Credit  Grades 10, 11, 12

NOTE: This course is offered every other year. It will not be available to students in the 2019–2020 school year. This course will be offered again in the 2020-2021 school year.

Math Prerequisite: Currently taking or previously completed Geometry and a grade of “B” or better in all Algebra courses taken at the high school level.

Additional Prerequisite: Grade of “C” or better in Intro to Engineering Design Honors (991).

In Environmental Sustainability, students investigate and design solutions in response to real-world challenges related to clean and abundant drinking water, food supply issues, and renewable energy. Students will apply their knowledge through hands-on activities and simulations. Students will research and design potential solutions to these true-to-life challenges facing the world today. Grade weighted upon successful completion of course.

997  Aerospace Engineering Honors

2 Semesters  1 Credit  Grades 10, 11, 12

NOTE: This course is offered every other year. It will not be available to students in the 2019–2020 school year. This course will be offered again in the 2020-2021 school year.

Math Prerequisite: Currently taking or previously completed Geometry and a grade of “B” or better in all Algebra courses taken at the high school level.

Additional Prerequisite: Grade of “C” or better in Intro to Engineering Design Honors (991) and in Principles of Engineering Honors (992).

Students are introduced to the world of aeronautics, flight, and engineering through PLTW activity and problem-based learning by exploring the world of aerospace engineering. Students will engage in lessons involving aerospace information systems, aeronautics, rocketry, propulsion, principles of aeronautics and more. The course of study includes History of Flight, Aerodynamics, and Aerodynamics Testing, Flight Systems, Astronautics, Space Life Systems, Aerospace Materials, and Systems Engineering. One of the programmed activities asks students to design and test several airfoils, then use a wind tunnel to better understand the airfoil’s relationship to lift, and ultimately to flight. Grade weighted upon successful completion of course.

995  Engineering Design and Development Honors

2 Semesters  1 Credit  Grades 11, 12

Math Prerequisite: “B” or better in Geometry. It is recommended that students concurrently enroll in Precalculus or Calculus.

Additional Prerequisite: Grade of “B” or better in Intro to Engineering Design Honors (991) and in Principles of Engineering Honors (992). In addition, completion of one or more specialization courses, 993, 994, 996, 997, or 998, with a “B” or better. This is the PLTW capstone course. It is an engineering research course in which students may work in teams to research, design, and construct a solution to an open-ended engineering problem. Students apply principles developed in the preceding PLTW courses to solve design problems. They must present progress reports, submit a final presentation, and defend their solutions to a panel of reviewers at the end of the school year. Grade weighted upon successful completion of course.
CAREER PATHWAYS:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credit</th>
<th>Grade Level(s)</th>
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<th>Eng. &amp; IT</th>
<th>A&amp;H</th>
<th>H &amp; HS</th>
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<tbody>
<tr>
<td>961</td>
<td>Elementary Teacher Aide Program (ETAP)</td>
<td>1</td>
<td>12</td>
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<td>9800</td>
<td>Diversified Career Occupations (DCO)</td>
<td>Varies</td>
<td>12</td>
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<td>9900</td>
<td>Emerging Health Professions Program</td>
<td>Varies</td>
<td>12</td>
<td>x</td>
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<td>9747</td>
<td>Private Pilot Flight Theory (Airplane)</td>
<td>1</td>
<td>12</td>
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<td></td>
<td>Student Community Volunteer Service</td>
<td>9, 10, 11, 12</td>
<td>x</td>
<td>x</td>
<td>x</td>
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</tbody>
</table>

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B&C = Business and Communication Technology
Eng. & IT = Engineering and Industrial Technology
A & H = Arts and Humanities
H & HS = Health and Human Services

626 Career Explorations Ongoing .5 Credit Grades 9, 10
NOTE: Students complete this course online and are not scheduled to take a live course during the school day.
Through the process of self-exploration and career planning, students will learn how to match personal needs and expectations with satisfying career options. Students will learn self-assessment skills, research major and career alternatives, and make decisions based upon sound factual information, utilizing a variety of resources. Students will complete an online course and a digital portfolio during this self-reflection of interests using tools designed in Career Cruising. Completion of this course will be determined when all online modules are complete. This course is offered pass/fail.

354 Technology Internship 1 Semester .25 Credit Grades 9, 10, 11, 12
Prerequisites: Application and Teacher Recommendation
This option is available to students who complete an application and show strong leadership, technology skills and ethical practices. The Technology Internship involves participation in the Trojan Tech Team. This team of students will receive hands-on experience solving computer-related issues for students and teachers at PHS. Students will also receive basic training, individual guidance, and collaborative opportunities. The Coordinator of Educational Technologies and the Library Media Specialists will conduct the supervision and training of the group. Becoming a high school student technician requires enthusiasm, commitment, determination and participation in various activities. Students may take this course for multiple semesters. Course is offered Pass/Fail.

961 Elementary Teacher Aide Program (ETAP) 1 Semester 1 Credit Grade 12
This one semester program is designed for senior students who are seriously considering a career in elementary education or special education. The students will travel to an elementary school and serve in the capacity of a teacher’s aide in a classroom. High school and elementary faculty jointly supervise students. Students participating in the program must dress in business casual attire.

9800 Diversified Career Occupations (DCO) Credit Varies Grades 11, 12
Students may enroll in DCO during the junior and senior year. Students who are in good standing academically and on track for graduation may be released from school for half days to work. The employer is required to provide students with job training and skills by following an Occupational Training Plan in cooperation with LCTI. LCTI provides a certified, professional school-to-career coordinator who is responsible to monitor job-site placements. Weekly competency-based instruction takes place at PHS with the LCTI coordinator. Students are formally evaluated by both the LCTI coordinator and the employer each marking period.

9900 Emerging Health Professions Program Credit Varies Grade 12
The Allied Health Professions Program, approved by PDE and offered through LCTI, Penn State University, and Lehigh Valley Hospital and Health Network, provides highly motivated high school seniors with an opportunity to experience a variety of health care careers. While taking Penn State courses for college credit, students spend a large part of their time three days per week rotating among the various departments in the hospital. Students have the opportunity to work and interact with staff from all departments of the hospital, including: critical care units, radiology, respiratory care, pharmacy, physical therapy, clinical laboratories, emergency unit, medical and surgical units, general medicine and more. The classroom portion of the program provides students with instruction in a variety of patient care skills and hospital procedures to enable them to participate in patient care activities during the clinical
portion of the program. In addition to these basic skills, students are given an overview of the health care profession, different health care systems, health insurance, and other health related issues. Interested students should see their guidance counselor for more information and registration. **Grade weighted upon successful completion of course.**

**9747  Private Pilot Flight Theory (Airplane)**

<table>
<thead>
<tr>
<th>1 Semester</th>
<th>1 Credit</th>
<th>Grade 12</th>
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Interested in a career in aviation? Then this is the course for you! Private Pilot Flight Theory is an introductory dual enrollment course through LCCC designed to help students work towards earning their Federal Aviation Administration (FAA) Private Pilot Certificate. Study of the following topics within the FAA approved ground/flight school syllabus includes: introductory aerodynamics, meteorology, federal regulations, air traffic control, national airspace system, navigation for Visual Flight Rules flight, use of single-pilot resource management tools, introduction to aircraft systems and aircraft performance. Instruction in a flight training device is also available. Upon successful completion of this course, students will have the necessary skills for success on the FAA written exam for the Private Pilot Certificate, airplane single engine land. **Please note: Students can earn 1.0 Parkland elective credit in addition to 3.0 LCCC credits. Students and their families are responsible for all tuition, fees, and transportation to and from this course. Tuition as of the 2017-2018 school year was $165/three credits but is subject to change. Additional fees may apply.** The course is offered in the evening for approximately 15 weeks in the fall semester and again in the spring semester at LCCC’s Campus Airport Site located at Lehigh Valley International Airport, 600 Hayden Circle, Allentown, PA 18103. Interested seniors should register for this course on their course registration forms and must also complete a LCCC Dual Enrollment Registration Form, which will be sent home to registered students prior to the start of the fall and spring semesters.

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**Student Community Volunteer Service**

**Grades 9, 10, 11, 12**

The Student Community Volunteer Service Program offers interested Parkland students volunteer opportunities to allow them to experience the many benefits of volunteerism. The program is totally voluntary and students are required to pursue volunteer opportunities independently. Students with 30 hours or more of volunteer service in a calendar year will receive acknowledgement on their transcripts. Students do not need to register for this program. However, if students are interested in participating in this program, they should contact their guidance counselors.
Career and technical education, or CTE, helps students get more out of high school. Specifically, more opportunities to master practical skills, secure industry credentials, earn college credit, win scholarships, explore careers, develop leadership ability and gain real-world experience. That’s why Lehigh Career & Technical Institute is the smart choice for students who want to be college and career ready when they graduate.

Operating with the support of all nine Lehigh County school districts, LCTI offers dozens of CTE programs taught by industry experts in five areas of study: Arts & Humanities, Business & Communication Technology, Engineering & Advanced Manufacturing, Health & Human Services and Industrial Technology.

We are the largest career and technical school in Pennsylvania and, thanks to the support of our education and industry partners, among the best equipped nationwide. LCTI’s campus is adjacent to Lehigh Carbon Community College in the Schnecksville section of North Whitehall Township and boasts a 450,000-square-foot facility outfitted with the latest software, tools and equipment.

**ENROLLMENT OPTIONS**

**Academic Center:** The Academic Center provides students in grades 10-12 with the option of taking both their academic and career & technical course work at LCTI as full-day students. These rigorous academic courses will satisfy graduation requirements as well as complement the career & technical major of each student. Students will still graduate from their resident school districts and are encouraged to participate in extra-curricular activities back at their sending school. Students will be able to register for the full-day program during their school district’s regular course registration time.

**Half-day enrollment:** Students in grades 9-12 may choose the half-day enrollment option. The half-day option provides students with career & technical education at LCTI and the required academics at their respective school districts. Students are encouraged to take high-level course work at the sending district which will provide the academic background necessary to be successful in today's highly technical careers.

**Flex time enrollment:** Another option that may suit students' individual needs is the flex-day program. The flex program is designed to provide students with technical coursework on a limited schedule. Students may choose to come to LCTI for one or more periods per day depending upon their needs. Students may attend one or both semesters and may attend for multiple years. Many students use this technical educational training as a jump start to a technical degree in a four-year institution. Both the half-day and flex-day options may be chosen during the regular course registration process.

Lehigh Career & Technical Institute does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs or activities. Inquiries may be directed to LCTI’s Title IX Coordinator or the Section 504 Coordinator at 4500 Education Park Drive, Schnecksville, PA 18078 or 610-799-1358.
ACADEMIC CENTER COURSE OFFERINGS

All courses in the LCTI Academic Center are college-preparatory and meet graduation requirements. Courses are assigned based on classes completed at the sending district prior to attending LCTI. All science courses are lab-based and a graduation project is required for all Academic Center students. The courses offered in the Academic Center are listed below.

<table>
<thead>
<tr>
<th>English</th>
<th>Mathematics</th>
<th>Science</th>
<th>Social Studies</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELA II</td>
<td>Geometry</td>
<td>Biology</td>
<td>American Studies II</td>
<td>Wellness/ Fitness 11</td>
</tr>
<tr>
<td>ELA III</td>
<td>Algebra II</td>
<td>Chemistry</td>
<td>World Cultures</td>
<td>Wellness &amp; Fitness 12</td>
</tr>
<tr>
<td>Accelerated ELA III</td>
<td>Pre-Calculus</td>
<td>Physics I</td>
<td>American</td>
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<td>Physics II</td>
<td>Government/Civics/Economics</td>
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<td>Accelerated American</td>
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<td></td>
<td></td>
<td>Government/Civics/Economics</td>
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<tr>
<td>LCCC English Course</td>
<td>Calculus</td>
<td>Environmental Science</td>
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<tr>
<td>LCCC Academic Courses</td>
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Lehigh Career & Technical Institute Academic Center Course Schedule 2019-2020

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<thead>
<tr>
<th>Grades</th>
<th>Semester I</th>
<th>Semester II</th>
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<tbody>
<tr>
<td>10</td>
<td>Math</td>
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<tr>
<td></td>
<td>Science</td>
<td>Science</td>
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<tr>
<td></td>
<td>ELA II</td>
<td>ELA II</td>
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<tr>
<td></td>
<td>American Studies II</td>
<td>American Studies II</td>
</tr>
<tr>
<td>11</td>
<td>Math</td>
<td>Math</td>
</tr>
<tr>
<td></td>
<td>Science</td>
<td>Science</td>
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<tr>
<td></td>
<td>ELA III</td>
<td>ELA III</td>
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<tr>
<td></td>
<td>*Wellness/Fitness or World Cultures</td>
<td>*World Cultures or Wellness/Fitness</td>
</tr>
<tr>
<td>12</td>
<td>ELA IV</td>
<td>ELA IV</td>
</tr>
<tr>
<td></td>
<td>American Government/Civics/Economics</td>
<td>American Government/Civics/Economics</td>
</tr>
<tr>
<td></td>
<td>Wellness &amp; Fitness</td>
<td>Wellness &amp; Fitness</td>
</tr>
<tr>
<td></td>
<td>Math or Science</td>
<td>Math or Science</td>
</tr>
</tbody>
</table>

*Semester Course
LCTI ACADEMIC OPTIONS FOR HALF-DAY STUDENTS

Lehigh Career & Technical Institute (LCTI) provides academic courses to some half-day students who attend the school. It is very important for students to be successful in both their academic and technical course work. The courses taken at LCTI are necessary to meet the student’s graduation requirements. If a student does not complete an academic course with a passing grade, the course must be re-taken. LCTI does not offer a summer school; however, this option may be available through the sending high school. It may also be possible for courses to be made up during the students’ senior year; however, make up courses scheduled in the senior year can cause the student to lose the opportunity for a Cooperative Education job placement. If the coursework is not made up, graduation from high school may be jeopardized.

The following academic courses for half-day students may be required while attending LCTI.

American Studies II
The American Studies II course addresses the development of the United States throughout the twentieth century. This course is aligned to the Pennsylvania Core Standards for Social Studies as well as Reading, Writing, and Listening and Speaking. Through various activities and lessons, these standards will be met to understand the development of the United States as a world power; focusing on economic and industrial development, political trends, society and cultural problems and achievements. The students will develop an understanding of the progress of technology and social groups. They will be expected to evaluate the changes of culture in society and analyze the political contributions of individuals and events of the periods studied. American Studies assignments also include the integrated concepts between this history course and various Career & Technical Labs. Students will be assessed formally and informally to determine mastery of the content for the duration of the academic year.

Wellness & Fitness
Course Overview: The Wellness Program provides students with life-changing information on nutrition and various techniques on stress management that they can use throughout life. The most common mental disorders will be researched and students will receive training on suicide prevention. During nutrition, students will investigate the harmful ingredients found in the foods they eat on a daily basis, analyze products served by several fast food chains and research healthy alternatives.

The Fitness Program is designed to acquaint students with the benefits of physical activity in their lives and to promote life-long wellness and fitness. The course, which is held in the state-of-the-art LCTI Fitness Center, will feature various strength and conditioning principles, such as specificity, progression and overload, along with multiple training techniques, such as CrossFit, Tabata, Yoga, and an assortment of technology-based exercises.

LCTI CAREER & TECHNICAL EDUCATION OPTIONS

At Lehigh Career & Technical Institute, students learn by doing. Teachers guide students from instruction to action, helping them tackle projects that mirror on-the-job challenges as they develop the knowledge and skill necessary to secure industry credentials, earn college credit or both. For example, marketing students manage a store on their way to earning National Retail Federation certification. Programs are identified as either Program of Study (POS) or TECH PREP which designates the type of postsecondary credit options available. Students who participate in the POS programs have the ability to earn advanced college credits through SOAR (Students Occupationally and Academically Ready) or through articulation credit with a specific post-secondary school. Tech Prep programs only offer articulation credit where available.
LCTI’s programs fall into five areas of study:

**ARTS AND HUMANITIES**

**Advertising Design/Commercial Art:** Students will learn the latest Adobe graphic design software currently used in the professional workplace. The emphasis of the program is based on Adobe Photoshop, Illustrator and InDesign Creative Cloud and creating a printed and electronic portfolio of work produced through these programs. Students are able to receive certification for Adobe Photoshop, Illustrator and InDesign through Adobe endorsed Train Simple. In addition to the Adobe Creative Cloud, students will learn traditional illustration skills such as pencil drawing and shading, water color, color pencil, scratch board and various other mediums. Photography for advertising is used in class and students will learn the use of a Digital Single Lens Reflex camera and the setup of strobe lights. Students are able to concentrate in three different career objectives which are Graphic Design, Sign-Making or Illustration. *(POS)*

**Commercial Photography/Electronic Imaging:** Students who select this specialty will receive training in photography both in the studio and on location using the latest digital camera techniques and digital computer technology for processing and printing images. The course includes professional lighting techniques and design elements for a wide variety of subjects including wedding and portraiture, products for advertising, as well as photojournalism and editorial markets. *(TECH PREP)*

**BUSINESS AND COMMUNICATION TECHNOLOGY**

**Administrative Office Technology/Accounting:** Students are exposed to a variety of both technical and interpersonal skills to help prepare them for the 21st century office. Skills include office procedures, business communications, accounting, word processing, and utilizing the Microsoft Office Suite (Word, Excel, PowerPoint, Access, and Publisher). Additional topics include entrepreneurship, teamwork, and public speaking. *This program participates in the IT Academy* *(POS)*

**Computer Information Technology:** Students will be at the forefront of cyber-security related issues as a means to safeguard sensitive data and preserve confidentiality. Computer Information Technology will challenge students to develop meaningful business solutions through computer programming in Visual Basic, C++, C#, and Java. Students will learn to work with data in order to produce relevant information that will help to drive the direction of organizations and solve real problems. *This program participates in the IT Academy* *(POS)*

**Computer & Networking Technology:** Students are prepared for advanced network training and the industry standard CompTIA A+ and Network+ Service Technician certifications. The program takes students from basic PC hardware through operating systems and networking. Students will also learn the MS Office Suite, customer service and support, and advanced network support. Students have the opportunity to participate in dual enrollment coursework for college credit; additionally, satisfactory completion of the program may grant college course credit through articulation agreements with LCCC.  *This program participates in the IT Academy* *(POS)*

**Marketing and Business Education:** Students learn about finance, retail marketing, banking, entrepreneurship, promotions and other important aspects of marketing through virtual business software and retail experience in the school’s store. They examine what is necessary to run a business, promote a product or manage a department. Practical experience is available through the student-managed school store and by participating in community internship opportunities. *(POS)*

**Print Technology/Graphic Imaging:** Students creatively design printed materials such as full-color books, posters, packaging, displays, stationary, as well as specialty items like mugs and shirts. Using the most current
versions of Adobe Creative Cloud software on Apple Macintosh computers, students then reproduce their attractive projects on state-of-the-art copiers, printing presses, and bindery machines in a real production environment. (POS)

**Web Design/Web Programming:** Students learn the fundamentals related to web page design and website development, graphics, multi-media and HTML coding. Students are taught the tools for rapid web page production and basic server-side programming techniques to handle everything from forms transmittal to building dynamic interactive web pages, intranet, extranet and e-commerce applications. *This program participates in the IT Academy* (POS)

**ENGINEERING & ADVANCED MANUFACTURING**

**Computer-Aided Drafting & Design:** Students combine their industrial and mechanical interests with creativity and work toward successfully moving into mechanical, architectural or civil engineering careers. Drawing techniques, architectural plans, advanced AutoCAD, and engineering, open the world of CAD to students. This solid foundation assists Drafting/CAD students who wish to pursue further education and professional careers. (POS)

**Electromechanical/Mechatronics Technology:** Students learn an innovative curriculum which combines hands-on training with real world industrial equipment and software. Students get a solid background in industrial, electrical and electronic systems, A.C. and D.C. motors, motor controls, power distribution systems, programmable controllers, hydraulics, pneumatics, mechanical drives, transformers, process control systems and troubleshooting. (POS)

**Electronics Technology/Nanofabrication:** Students are taught the principles of electronics. From DC Circuits to Solid State Devices they learn to design, build, and test electronic circuits. LCTI has a fully functioning Class 1000 fabrication room (cleanroom) where students create the silicon chips that are the foundation of the information age and the heart and soul of modern electronics. (POS)

**Precision Machine Tool Technology:** LCTI’s Precision Machine lab is recognized as a Haas Technical Education Center and incorporates lessons and demonstrations, as well as extensive applications training in reading blueprints, operating a digital lathe, milling machine, drill press and other machine shop operations in the curriculum. Students train on state-of-the-art CNC machine tools placed in the lab by Haas Automation. (POS)

**Pre-Engineering & Engineering Technology:** This pre-engineering program is a sequence of courses which, when combined with traditional mathematics and science courses, introduces students to the world of engineering. Students study the principles of engineering, engineering design, digital electronics and computer integrated manufacturing. (POS)

**Supply Chain Management & Logistics Technology:** Students learn inventory control, purchasing, receiving, shipping, equipment operation and maintenance in a state-of-the-art 17,000 square foot distribution center. Students train with current industry technology including handle-held track pads and computers, vertical and horizontal carousels, a computer-controlled conveyor and a computer-integrated warehouse management system. Students explore the supply chain of products from their global origin to the consumer including modes of transportation. (POS)

**Welding Technology:** This course teaches students shielded metal arc welding, gas metal arc welding, flux cord arc welding, welding inspection, testing, and safety/emergency procedures. The program operates under entry level certification authorization by the American Welding Society and a special arrangement with Lehigh Carbon Community College permits students to earn a national skills certificate and an Associate Degree. (POS)
INDUSTRIAL TECHNOLOGY

**Auto Body/Collision Repair Technology:** Students learn about the tools and equipment associated with the collision repair industry, while learning welding, non-structural and structural damage analysis, estimating, and repair techniques, along with paint preparation and refinishing systems used on today's technologically advanced automobiles. This comprehensive course of study and the volume of exposure students receive allows them to step into the workforce immediately following graduation or continue studies at the post-secondary level. (POS)

**Auto Technology:** Students in this program are prepared to diagnose and repair automobile systems including electrical systems, ignition and emission systems, engine cooling and lubrication, front ends, air conditioning, brakes, transmissions, engines and drive trains. Students participate in the nationally recognized Automotive Youth Education Systems (AYES) industry partnership. The program teachers are Master Certified ASE Technicians who utilize state-of-the-art equipment to prepare students to become automotive technicians. (POS)

**Cabinetmaking & Millwork:** Cabinetry, wood products design and layout and construction open the world of cabinetmaking & millwork to students. Students are taught to read blueprints, make shop drawings, and produce components with trade-related hand and power tools and machinery. The newly expanded lab and curriculum provides knowledge of lumber products adhesives, fastener, finishing, 32mm cabinets and counter top fabrication. Technology has entered this rewarding construction trade with the addition of CNC router technology. (POS)

**Carpentry:** Blueprints, site work, construction footings, framing floors/walls/ceilings/roofs, radon control, insulation and power tools are some of the areas taught in Carpentry. Students participate in the LCTI Student House Project where a home is built and sold at auction upon its completion. Students learn how the building industry works, its standards, and what is required to complete a project on time and at cost. (POS)

**Diesel/Medium and Heavy Truck Technology:** Students gain experience with drive trains, clutch assemblies, transmissions, diagnostics, steering and other aspects of this industry. Students also study suspension, diesel engines, gasoline engines, bearings and seals. The trucking industry needs professionals to service the truck fleet that keeps industry and commerce moving in the United States. LCTI can provide students with the necessary expertise they need to succeed in this industry. (POS)

**Electrical Technology:** Students learn residential, commercial, and industrial electrical wiring, as well as fluid power technology planning and wiring. Students are taught to install duplex and split wired duplex receptacles, single pole switches, 3-way and 4-way switches and Ground Fault Circuit Interrupters. (POS)

**Heating/Air Conditioning & Refrigeration:** Students learn to install, troubleshoot and repair air conditioning, heat pumps, commercial refrigeration units and gas and oil heating equipment. Skilled technicians are proficient in reading electrical diagrams, diagnosis of electrical problems, air distribution designs, copper and steel pipe cutting, soldering and fabricating fiberglass and sheet metal duct systems. (POS)

**Heavy Equipment Operations & Preventive Maintenance:** As a student in this fast-paced and diverse program, you will learn the safety, maintenance and operating techniques for a wide variety of earthmoving equipment. Students will also receive instruction in soils, erosion and sediment control, site preparation, aggregate production, concrete and asphalt paving, surveys and grades, and utility installation. In addition, students will have the opportunity to learn machine systems, parts identification and ordering, and preventative maintenance techniques in a state-of-the-art facility. **This program is not available to ninth grade students.** (TECH PREP)

**Masonry:** Students will learn various layouts and pattern designs using brick, concrete masonry units, stone and ceramic tile. This comprehensive program teaches students how to correctly use the necessary tools and equipment
to build simple wall structures, fireplaces and brick sculptures. Ceramic tile installation and thin stone veneer applications are also included in the curriculum. Students also participate in the student-built house project. (POS)

**Painting and Decorating:** Students learn to refresh and highlight interior and exterior spaces (residential and commercial) as well as improve and restore historical buildings. Painting, wallpaper hanging, furniture refinishing, line striping, staining and spraying are among some of the topics emphasized in this program. (TECH PREP)

**Plumbing and Heating:** In this high priority occupation program, Students will learn the basic to the advanced skills of Plumbing & Pipe Fitting. Repairing and installation of items such as, but not limited to; Faucets, Bathtubs, Toilets, Sump Pumps, Sewage Pumps, Water Heaters, Boilers, Water Softeners, Well Pumps, Solar Heating Systems, Chilled Water, Air Conditioning and Radiant Heating Systems. This lab will teach skills such as but not limited to; brazing, soldering, threading, pressed, rolled/grooved, flared, pipe fitting and measurement and fused joints. Students will work with PEX, Copper, Steel, Cast Iron, PP-R, PVC and CVPC Pipe and Tubing. This program incorporates a multi-level and fast paced, technology enriched learning environment. (POS)

**Small Engines/Recreational Vehicle Repair:** Students will learn to diagnose and repair lawn mowers, chain saws, jet skies, motorcycles and go-karts. Students will learn about the small engine and the vital components to effectively make the engine perform to maximum efficiency. Students will also learn about brake systems, transmissions, hydraulics, hydrostatics and drive systems. Students will learn skills that involve welding, cutting with a torch, cylinder honing and boring. (POS)

**HEALTH AND HUMAN SERVICES**

**Applied Horticulture:** This program, a combination of general horticulture (plant science) and hands-on applications, prepares students to produce, process and market plants and flowers used for ornamental and aesthetic purposes as well as establishing, maintaining and managing various horticultural businesses. Instruction emphasizes knowledge, understanding and applications important to the success of businesses such as floriculture (floral design), greenhouse and nursery operations and management, and landscape technology. (POS)

**Commercial Baking:** Cake decorating, breads, rolls, sweet goods, pastries, pies, doughnuts and nutrition are all part of this course. Students learn the fundamental principles and procedures of operating a fully functioning bakery and retail bake shop, including preparation, display and management. With attention to both theory and practice, this course is designed to prepare students for entry-level positions in the commercial baking industry. (POS)

**Cosmetology:** Students learn hair styling, hair cutting, hair coloring, chemical texturizing, nail/skin care and salon business operations. Students learn these skills through clinical practices offered at the school salon. Preparation for the Pennsylvania State Board Examination will enable students to become licensed as a cosmetologist and will allow them to work in a challenging and creative profession. (TECH PREP)

**Criminal Justice:** Students learn Pennsylvania criminal and traffic laws, the legal use of force, search/seizure/evidence procedures, arrests and other aspects of law enforcement. Students also train in a fire arms simulator and conduct mock disaster drills to gain practical emergency skills. (POS)

**Culinary Arts:** Stocks, soups, sauces, appetizers, desserts, main dishes, menu planning and nutrition are just some of the aspects of this program. Students learn front of the house and back of the house skills working in the school restaurant. LCTI’s program is certified by the American Culinary Federation and is nationally recognized as exemplary in all areas of the curriculum. (POS)
**Dental Technology:** Students who enroll in this program learn a variety of skills that will enable them to become a dental assistant, dental laboratory technician, and/or pursue a career as a dental hygienist. The major areas of study in the course include: dental radiology, oral pathology, chair-side dental assisting, anatomy and physiology, dental materials, sterilization, and dental office business procedures. (POS)

**Early Care & Education of Young Children:** Students studying childcare will learn child and staff health, child development, early childhood education, special education, discipline and guidance of children, childcare program development and professional development. (POS)

**Emerging Health Professionals:** The Emerging Health Professionals Program provides high school seniors with an opportunity to experience a variety of health care careers in a hospital setting and take Penn State/Lehigh Carbon Community College science courses for college credit. Students spend one day a week rotating among various departments of a hospital. Students will experience these departments throughout the three Lehigh Valley Hospital & Health Network facilities, St Luke’s University Health Network Allentown Campus, Country Meadows, and Good Shepherd Rehabilitation Network. The hospital portion of the program provides students with observational experience that enables students to observe various health care professionals as they work with patients. Also, students have the opportunity to meet various health career professionals during presentations within the LVHN community. In addition to these experiences, students are given an overview of the health care industry and all that it entails throughout their coursework at LCTI. This program is only available to senior students. (POS)

**Exercise Science & Rehabilitation Services:** Health care is among the nation’s fastest growing industries and offers a broad range of professional opportunities. In our Exercise Science & Rehabilitation Services program, students learn about the practical applications of medical science as they explore careers in physical therapy, athletic training and comparable fields. Students can earn CPR, AED and other certifications through the American Heart Association and may pursue internship and co-op positions at local health care facilities. (POS)

**OTHER PROGRAM OPTIONS**

**Service Occupations Cluster:** Five curricular areas are offered in this program: Building Trades Maintenance, Food Service, Hospitality Services, Indoor/Outdoor Maintenance, and Supply Chain Management & Logistics Technology. Each area is designed to help the student transition from basic entry-level skill development to more advanced technical training or directly into the workforce. A skills screening will be done to determine the readiness and interest of the student. Results of the screening will be provided to the student’s IEP team.

**Career Academy Program:** Provides the nine participating school districts of Lehigh County an alternative for at-risk students to receive a high school diploma and work toward a career goal in their program of choice. Selected technical programs at LCTI are available to Career Academy Program (CAP) students. They receive academic instruction in English, mathematics, social studies, science, health/wellness, physical education, job readiness, and enrichment coursework. The program operates on a three-day rotation schedule with two out of three days focused on Career & Technical Education Programs. Programs include: Auto Specialization Technology, Building Trades Maintenance, Electrical Technology, Graphic Communications, Health Occupations/Health Related Technology, and Office Systems Technology.

**School-To-Career**

- **Job Shadow** Students accompany employees through part of a typical day and learn about the varied aspects of their job and skills required to work in the field.

- **Internship** Students may participate in a business match program that allows them to spend a period of time working in their field of study.
• **Cooperative Education** Students in 11th and 12th grade may participate in a business match program that allows them to spend a portion of the school year working in their field of study. Students pursue their academic coursework on a half-day schedule and report to their place of employment for the remainder of the day.

**DUAL ENROLLMENT PROGRAM**

**Did you know you can take college classes while attending LCTI?**

*Opportunities to earn college credit while still in high school*

You won’t have to break the bank to attend college. Each credit course at Lehigh Carbon Community College (LCCC) costs about half the regular tuition rate and less than a fourth of the cost for a comparable credit course at any one of Pennsylvania’s State universities.

*What is a placement test?* A placement test is given to students who are interested in taking college courses at LCCC. Students must obtain a minimum score to be eligible for college classes. More information regarding placement testing can be found on lccc.edu.

*Dual Enrollment requirements?* Students must be Level II or higher in their lab programs and maintain a minimum of a “B” average to participate in Dual Enrollment. Students must also have good attendance and no discipline referrals. The tuition and associated costs for dual enrollment courses must be paid by the student/parent.

*Want to see if Dual Enrollment is right for you?* Our free, one credit course “The College Experience” is an opportunity to explore dual enrollment. In “The College Experience” you’ll learn what to expect if you go to college, as well as what will be expected of you. Upon completion of the course, students have the option of taking a placement test to determine eligibility for future classes at a reduced rate paid by the student/parent.