

# Lakeview High School

2482 Mercer Street  
Stoneboro, PA 16153  
724-376-7911



**Student and Parent Scheduling Manual**  
DESCRIPTION OF REQUIRED AND ELECTIVE COURSES TO BE OFFERED

**2017-2018**

*The focus of the educational program at Lakeview High School is on the growth and development of each student to his/her maximum potential.*

## INTRODUCTION

Selecting a program of studies is one of the most important decisions a secondary school student must make. The curriculum and specific elective courses a student selects determine, to a large extent, the avenues of opportunity available during the immediate post-high school years. Choosing courses that are worthwhile and challenging will promote personal satisfaction as well as educational excellence.

The purpose of this booklet is to provide a comprehensive presentation of the programs of study available to Lakeview High School students. An overall understanding of the curriculum enables students – together with their parents, guidance counselors and teachers – to set goals and objectives which can be met through thoughtful selection of courses. Students interested in early college acceptance should review the procedures outlined in this scheduling manual or the student handbook and must contact the guidance counselor.

The program of studies includes an outline of our educational programs, descriptions of courses offered and student course selection worksheets. Every student is urged to study this guide carefully and discuss its contents with parents, counselors and teachers. Planning and wise choosing of courses will enable students not only to satisfy present needs and interests, but to attain future goals as well.

Students should remember that selecting a program of studies is only one part of their obligations in school. Study, preparation, participation, disciplined behavior and a good attitude are vital ingredients to attaining a successful secondary school education. If you have any questions about a course, you are encouraged to discuss those with the appropriate teacher, counselor, or principal.

Administrative and Guidance Staff for 2017-2018

**Ms. Laurie Kantz**  
Principal of Academics  
6-12

**Mr. David Blakley**  
Principal of Student Activities  
6-12

**Mr. Jim Morris**  
School Counselor  
10-12

**Mrs. Alicia Sciarretta**  
School Counselor  
6-9

## SPECIAL EDUCATION

Students in need of special education services receive an evaluation by a multi-disciplinary team. Evaluation will be provided on a non-disciplinary basis. The results of the evaluation will be utilized to plan for appropriate instructional methods and materials to teach the student. Each student receiving special education services has an Individual Education Plan (I.E.P.) developed on an annual basis, and a re-evaluation conducted every two/three years. Eligible students shall be provided an education, which approximates as nearly as possible the curriculum of the school district. All eligible students have an Individual Transition Plan and a Graduation Plan as a part of their I.E.P. Gifted students will be provided an education that enables them to participate in acceleration or enrichment, or both. All eligible and gifted students' programs shall be in accordance with their I.E.P.

Parents of handicapped or disadvantaged students are urged to contact Lakeview High School if there are questions concerning assessment and special services. Please contact Mr. Jim Morris, High School Guidance Counselor at 724-376-7911, Ext. 6118, or Mrs. Jennifer Johnston, Special Program Contact at 724-376-7911, Ext. 6025.

## VOCATIONAL EDUCATION PROGRAM

All students have the opportunity to participate in vocational courses. It is strongly recommended that the student consider all vocational opportunities available. For students identified with special needs, services and modifications will be made available so that the student can complete his or her vocational educational program. All vocational teachers are informed on an annual basis of any modifications or special services to be provided to the handicapped or disadvantaged student who enrolled in vocational education. I.E.P.'s for handicapped students enrolled in vocational programs will reflect annual goals and any modifications necessary for the respective vocational program.

## NON-DISCRIMINATION NOTICE

Lakeview School District is an equal opportunity educational institution and will not discriminate on the basis of race, color, national origin, sex, or handicap in its activities, programs, or employment practices as required by Title VI, Title IX, and Section 504.

For information regarding civil rights and grievance procedures or concerning the full range of available educational opportunities, location of services, activities, and facilities that are accessible to and usable by handicapped persons, contact Lakeview School District, Title IX Coordinator/Section 504 Coordinator, 2482 Mercer Street, Stoneboro, PA 16153, 724-376-7911.

## CURRICULUM PROGRAMS

The various programs of study offered at Lakeview High School may be grouped into three broad classifications: College Prep, Career Prep and Vocational Prep.

A. **The College Prep Curriculum**

This program provides opportunities for students who have demonstrated academic achievement and prepares them for entrance into college. Academic English, Social Studies, Math and Science are recommended each year in addition to other core requirements.

B. **The Career Prep Curriculum**

This program is designed for those intended to enter the world of work immediately after graduation. The curriculum offers a basic education including courses with technical content to provide students with the fundamental skills and knowledge they need to become self-sufficient adults and to provide them with an understanding of the society in which they live so they can function effectively as citizens.

C. **The Vocational Prep Curriculum**

The Mercer County Career Center, located in Mercer, offers areas of study for students in grades 10, 11 and 12. Three-year programs (2 years instruction and 1 year co-op) are chosen by students when they are in ninth grade. Two-year programs are chosen by students in 10<sup>th</sup> grade. Students selecting cosmetology should be aware that it is a three-year program; the final year's cost is to be borne by the student. Detailed programs at the Career Center are available from the Guidance Office and the Internet [www.mccc.onlinecommunity.com](http://www.mccc.onlinecommunity.com).

- |                               |                               |
|-------------------------------|-------------------------------|
| ❖ Auto Body                   | ❖ Electronics Technology      |
| ❖ Auto Mechanics              | ❖ Entrepreneurial Studies     |
| ❖ Building Trades Maintenance | ❖ Health Care Careers         |
| ❖ Carpentry                   | ❖ Innovation & Design         |
| ❖ Cosmetology                 | ❖ Precision Production Metals |
| ❖ Culinary Arts               | ❖ Protective Services         |
| ❖ Diesel Mechanics            | ❖ Welding                     |
| ❖ Early Childhood Education   |                               |

## PROCEDURE FOR COURSE SELECTION

At an appropriate time each year, secondary students after discussions with parents, counselors and teachers, will make course selections appropriate to their educational and vocational goals. In making course selections, students must meet the minimum standards for each grade level, including required subjects and number of credits specified by the Pennsylvania State Department of Education and Lakeview Board of School Directors.

Both students and counselors are responsible for meeting the following guidelines in scheduling:

1. Students should review the entire program of study booklet with their parents and choose a particular curriculum model.
2. Students must schedule all required courses listed in the model they choose to follow.
3. Any deviation or change in the program curriculum must have the approval of the counselors and administration. These will be based on the needs of the student as identified by the staff. **Note that some courses will require teacher recommendation, as indicated.**
4. The student, the parent and the counselor **must** sign the course selection form.
5. Timetable of activities:
  - a. Students are presented with a course of studies booklet and an explanation of procedures.
  - b. Courses are selected, worksheets completed and returned to the Guidance Office.
  - c. Course selection verification letters are distributed to students and are to be reviewed by students and parents. Changes and corrections are to be made on this form. Student and parent signatures are **required** indicating the student **will** enroll in these courses.

## CHANGES IN COURSE SELECTION

Once made, course selections are considered final and binding. The selection of courses should be viewed as a contract between students and school. The administration and guidance staff will do all in their power to make provisions for students to be scheduled in the courses of their choice. The students, in turn, must complete those courses they select.

**All courses listed in this booklet may not be offered. If there is not sufficient registration for a course, it may be withdrawn and the students will be notified so that they can make another selection.**

If students sign up for a course and then circumstances develop which make the choice unreasonable, they may contact the Guidance Office and request permission to make a change. The counselor will evaluate the request and explain the procedures to be followed.

### All schedule changes must be made prior to the 1<sup>st</sup> day of school.

Students are eligible for special consideration and schedule change approval when their requests are based on one of the following reasons:

1. Health problems verified by a physician;
2. Computer errors or conflicts;
3. The need to earn credit(s) for graduation (seniors only).

Any request for a schedule change which does not fit these criteria, but which is deemed necessary by the guidance counselor will be eligible for review by the high school principal. Dropping a class may result in a "Withdrawal F" on records, if deemed appropriate by the teacher, counselor and principal. The High school principal determines the final schedule change.

## GRADUATION REQUIREMENTS

**Academic Curriculum:** The Pennsylvania Department of Education and the local Board of School Directors set the standards for graduation from Lakeview High School. \*Pending Board approval: **Students entering LHS as a Freshman in the 2017-2018 School year must earn a minimum of 27 credits in grades nine through twelve.** All other students will continue to require a minimum of 26 credits to graduate in 2018, 2019 and 2020. **\*ALL students will be required to schedule a minimum of 7 credits per academic year.**

### **Graduation Requirements for Students Graduating 2018, 2019 and 2020**

	Total Required Credits	Grade 9	Grade 10	Grade 11	Grade 12
English/Language Arts	4	1	1	1	1
Social Studies	3.5	1	1	1	.5
Math	3	1	1	1	
Science	3	1	1	1	
Health & Physical Education 9, 10-12	1	.5	.5 (taken in 10 <sup>th</sup> , 11 <sup>th</sup> OR 12 <sup>th</sup> )		
Unified Block 9 Careers (.25) Health (.25) Drivers Ed (.25) Family Living (.25)	1	1			
Computer	1.5	.5	.5	.5 (Taken either Grade 11 or 12)	
Electives	9.0	Taken in Grades 9-12 (lowered by .5 to accommodate PE change)			
<b>Total</b>	<b>26</b>				

**Change for Freshmen: Students Graduating 2021 and beyond \*Pending School Board Approval**

	Total Required Credits	Grade 9	Grade 10	Grade 11	Grade 12
English/Language Arts	4	1	1	1	1
Social Studies	3.5	1	1	1	.5
Math	3 or 4 each, 7 total (Total of 3 each for MCCC Students)	1	1	1	1 (or science)
Science		1	1	1	1 (or math)
Health & Physical Education	1	.5	.5 (taken in 10 <sup>th</sup> , 11 <sup>th</sup> OR 12 <sup>th</sup> )		
Unified Block 9 Careers (.25) Health (.25) Public Speaking (.25) Family Living (.25)	1	1			
Computer	1.5	.5	.5	.5 (Taken either Grade 11 or 12)	
Electives	9.0	Taken in Grades 9-12			
Total	27 (26 for MCCC students)				

**Keystone Exams**

A score of Proficient or above on the Pennsylvania Keystone Exams in Algebra I, Literature, and Biology is a Lakeview High School graduation requirement. An exam will be initially administered at the completion of the following courses:

- Algebra 1
- English10/Honors English 10
- Basic/Academic Biology

Students who do not achieve a score of proficient or above will receive remediation in each subject he/she did not score proficient on and will be retested during subsequent waves of Pennsylvania Keystone Exam Testing Windows. Local assessments for students unable to pass the Keystone exams will be a final option for meeting graduation requirements.

**Senior Graduation Project**

During their junior and senior year, students are required to begin and complete 5 components that comprise the senior graduation project. Details and this packet are available in the guidance office.

**CLASS STANDING AND GRADUATION**

*Class standing does NOT determine the year of graduation.*

Class standing (grade level) at the senior high school level is easily misunderstood. Students at the senior high level will be promoted each year to the next grade level for data collection purposes and grade level state assessment testing. This promotion is **NOT** an indicator of the number of credits earned and does not indicate if specific graduation requirements are being met. Students and parents are reminded that graduation requires meeting the criteria stated in this book under Graduation Requirements. Therefore, class standing has limited meaning and use at the senior high level.

Primary uses of class standing (grade level) are:

1. Determining class rank
2. Eligibility for student activities and athletics
3. Student processing for scheduling
4. A database for record keeping and reporting data
5. State assessment Keystone testing completed by 11<sup>th</sup> Grade

**Having senior class status (12<sup>th</sup> grade) DOES NOT necessarily mean that a student can or will graduate at the end of the school year.**

## WEIGHTED GRADING SYSTEMS

The philosophy of grade weighting is based on the premise that a grade in a more academically challenging upper level course should carry more point value than the same grade given in a less challenging course. The primary reason for grade weighting is to determine a student's rank in his/her particular class. The amount of weight that will be assigned to a course will be based on the academic difficulty of the course as determined by a committee of faculty, guidance and administrative personnel. Weights will only be applied to Lakeview High School Academic courses.

Courses have been divided into three levels. A point value of 1.0 has been established for courses in Level I. This level would include our basic or entry level classes. The following is a list of courses for Level II and Level III.

**LEVEL II** (weight = 1.05 this level would include our more advanced courses)

Chemistry 1	Human Anatomy	Pre-Calculus
French IV	Spanish IV	

**LEVEL III** (weight – 1.1 this level would include our most advanced and primarily junior/senior courses)

Calculus	Honors English 9-12	Chemistry III/General Chemistry-CHS w/lab
Algebra 3/Trigonometry	Chemistry 2 w/lab	Calculus 2/Calc 1- CHS
Advanced Biology w/lab	Physics w/lab	Intro to Matrices and Linear Algebra (CHS)
Stats (CHS)		American Political Process (CHS)

## EARLY COLLEGE ADMISSION

A student, with parent approval, shall inform the high school principal and guidance counselor of intent to pursue this option.

A student must fulfill the following:

1. A conference must be held with parent, counselor, principal and student to review the terms and conditions of the early college admission option.
2. The student must be accepted by an accredited institution of higher learning as a full time student and must successfully complete the freshman year as a full time student. With these conditions met, the senior year of all required courses at Lakeview High School shall not be required.
3. During the initial year of higher education, the student is not considered enrolled at Lakeview High School; and therefore, is not eligible to participate in school activities, intramurals, interscholastic sports or other events conducted by the high school with the exception of the Junior-Senior Prom and the graduation ceremony.
4. The student will not be eligible for community and school scholarships, awards or class rank.
5. A high school diploma will be awarded either at graduation or through certified mail to the student when the following conditions are met:
  - a. Successful completion of the freshman year as a full time student (12 credit hours each semester or equivalent) at an accredited institution of higher learning.
  - b. Presentation to the high school principal of an official transcript of credits showing the student has completed the freshman year successfully.
  - c. Request in writing the issuance of a diploma from the high school.

## COLLEGE IN HIGH SCHOOL (CHS) DUAL ENROLLMENT

Dual Enrollment Opportunities are available for students in grades 11 and 12. The guidance office has information for courses available through Grove City College and the University of Pittsburgh. These courses require a fee that must be paid by the student, if he/she would like to receive college credit for the class in addition to credit toward High School graduation. Courses will be weighted at a 1.1 level and be included in class rank determination.

## SUGGESTED COLLEGE PREP CURRICULUM PROGRESSION

Grade 9		Grade 10	
English 9 / Honors English 9	1 / 1.1	English 10 / Honors English 10	1 / 1.1
US History I	1	US History II	1
Adv. Alg. II & Adv. Geom	2	Alg III/Trig	1.1
Physical Science/Acad. Biology	1	Acad. Biology/Chemistry I	1/1.05
Foreign Language I	1	Foreign Language II	1
Media Programming	.5	Phys. Ed 10	.5
Unified Block 9 <sup>th</sup>	1	Business Web Design	.5
Phys. Ed 9	.5	Electives	2
Electives	1 or 0	<b>Total Credits</b>	<b>8+</b>
<b>Total Credits</b>	<b>8+</b>		
Grade 11		Grade 12	
English 11/Honors English 11	1/1.1	English 12/Honors English 12	1/1.1
World Cultures	1	Economics or Manufacturing Enterprise	.5/1
Calc I	1.1	Calc II or other CHS course	1.1
Adv. Bio or Chem 2	1/1.1	Science Elective & Lab	1.5
Phys. Ed or Elective	.5	Phys. Ed or Elective	.5
Technology Tools	.5	CHS Course	1.1
Electives	3	Electives	2.5
<b>Total Credits</b>	<b>8+</b>	<b>Total Credits</b>	<b>8+</b>

### COMMENTS:

Juniors and seniors who have narrowed their college preferences should select electives in specific subject areas to meet their needs. Always recommended for electives are computer classes and foreign language electives. Deviations from the college prep curriculum require the permission of both counselor and principal.

## SUGGESTED CAREER PREP CURRICULUM PROGRESSION

Grade 9		Grade 10	
English 9	1	English 10	1
US History I	1	US History II	1
Algebra I	1	Geometry	1
Physical Science	1	Biology/Acad. Biology	1
Media Programming	.5	Phys. Ed	.5
Unified Block 9 <sup>th</sup>	1	Business Web Design	.5
Phys. Ed	.5	Electives	3
Electives	2	<b>Total Credits</b>	<b>8</b>
<b>Total Credits</b>	<b>8</b>		

Grade 11		Grade 12	
English 11 / Practical English 11	1	English 12 / Practical English 12	1
World Cultures	1	Economics	.5
Algebra II	1	Pre-Calc	1
Science	1	Phys. Ed or Elective	.5
Phys. Ed or Elective	.5	Internship/Externship	1
Technology Tools	.5	Electives	4
Electives	3		
<b>Total Credits</b>	<b>8</b>	<b>Total Credits</b>	<b>8</b>

### COMMENTS:

As sophomores, juniors, and seniors narrow their possible career fields, electives should be selected with their personal aptitudes and interests in mind. Required courses from the college prep curriculum may be substituted for comprehensive studies courses and counselor and principal approval, or may be taken in addition to regular curriculum requirements.

## SUGGESTED VOCATIONAL CURRICULUM PROGRESSION

Grade 9 (2 yr. Program/3yr program)		Grade 10 (2 yr. Program/3yr program)	
English 9	1	English 10	1
US History I	1	US History II	1
Algebra 1 OR Fund of Algebra	1	Geometry OR Algebra 1	1
Physical Science	1	Biology/Acad. Biology	1
Media Programming	.5	PE 10-12 or Elective or Career Center	.5/3
Unified Block 9th	1	Business Web Design or Career Center	.5/0
PE 9	.5	Electives or Career Center	3/0
Electives	2	<b>Total Credits</b>	<b>8/7</b>
<b>Total Credits</b>	<b>8</b>		
Grade 11		Grade 12	
English 11 / Practical English 11	1	English 12 / Practical English 12	1
World Cultures	1	Economics	.5
Principles of Algebra & Geometry OR Alg II	1	Technology Tools	.5
Science	1	Practical Math or Science elective	1
Career Center	3	PE 10-12 and .5 Credit Elective	1
<b>Total Credits</b>	<b>7</b>	Career Center	3
		<b>Total Credits</b>	<b>7</b>

### COMMENTS:

Required courses from the college prep curriculum may be substituted for Career Center Courses with counselor and principal approval, or may be taken in addition to regular curriculum requirements.

## MERCER COUNTY CAREER CENTER COURSE DESCRIPTIONS

### MCCC – CLASSES

Courses available at Mercer County Career Center meet during afternoons. Transportation is provided by the school district. A multitude of technical trades are offered. See the guidance counselor for details.

- **Auto Body**
- **Auto Mechanics**
- **Building Trades Maintenance**
- **Carpentry**
- **Cosmetology**
- **Culinary Arts**
- **Diesel Mechanics**
- **Early Childhood Education**
- **Electronics Technology**
- **Entrepreneurial Studies**
- **Health Care Careers**
- **Precision Production Metals**
- **Protective Services**
- **Welding**

Course	Course Number	Credits	Grade Level
--------	---------------	---------	-------------

#### **Auto Body**

**V0829**

**3**

**11,12**

Auto Body Technology is one of the fastest growing and most innovative fields in the automotive industry. You use cutting edge technology based on Automotive Service Excellence (ASE) Standards as you estimate damage, replace parts, refinish/detail automobiles and prepare a vehicle for customer delivery. Learn welding, plastic repair, refinishing/painting to create career opportunities in manufacturing, fabrication as well as auto body technology while earning I-Car certification. Instruction takes place in a safe, clean, well-equipped shop.

#### **Auto Mechanics**

**V0830**

**3**

**11,12**

The Auto Mechanics program is designed to provide the students with entry-level skills and knowledge needed to diagnose and repair today's modern vehicles. The student's training is based on Automotive Service Excellence Standards (ASE) and includes the following: Braking systems, steering and suspension systems, engine performance, electrical and electronic systems, automatic and manual transmissions, HVAC (heating ventilation and air conditioning) and engine repair. Standard automotive business practices are also studied including: completing and calculating work orders, time cards, and parts invoices. The program also provides the students the opportunity to earn their Pennsylvania State Inspection license and their Northern Region Emission Inspector license. Students are able to work on trainer vehicles, customer vehicles and their own vehicles.

<b>Course</b>	<b>Course Number</b>	<b>Credits</b>	<b>Grade Level</b>
<b>Building Trades Maintenance</b>	<b>V0822</b>	<b>3</b>	<b>11,12</b>
In Building Trades Maintenance, students learn basic skills in Electricity, Masonry, Plumbing, Carpentry, and HVAC/R (Heating, Ventilating, Air Conditioning, and Refrigeration). Many students develop advanced skills in one or more of these technical areas. Students will learn to safely operate a wide variety of hand tools and power machinery. During the first year students study and develop skills in all of the program areas. In the second year students are encouraged to specialize in one of the program areas. Students have the opportunity to apply for all union trades after completion of senior year.			
<b>Carpentry</b>	<b>V0823</b>	<b>3</b>	<b>11,12</b>
Carpenters literally build the future by constructing and remodeling houses, apartments, and commercial buildings. Join the Carpentry Team and learn to build like a pro! Use computers and architectural design software to draw floor plans and renderings. Construct a house using the latest tools. Visit area work sites, meet professional builders, and visit the Carpenters Union to learn how to earn your journeyman's card. Visit colleges and learn about advanced degrees in Management and Engineering. Learn how experienced Carpenters advance into supervisory positions or own their own business.			
<b>Cosmetology</b>	<b>V0825</b>	<b>3</b>	<b>10,11,12</b>
Experience the world of beauty and fashion through the Cosmetology program. Use cutting edge techniques to deliver precision haircuts, perms, chemical relaxing, braiding, manicures, facials and hair color treatments. Two days a week you will master your skills on customers in our student operated salon. Students successfully completing 1250 hours of instruction are eligible for licensure from the Pennsylvania State Board of Cosmetology.			
<b>Culinary Arts</b>	<b>V0826</b>	<b>3</b>	<b>11,12</b>
The course is designed to give students the basic skills needed to start a career in the restaurant and hospitality industry. You will create foods, from appetizers to desserts, in our professionally equipped kitchen and bakery. The curriculum and professional equipment is designed to develop skills in all areas of the food service industry and equip students for immediate employment or post high school training. Students will be able to earn ServeSafe certification.			
<b>Diesel Mechanics</b>	<b>V0831</b>	<b>3</b>	<b>11,12</b>
Learn the skills needed to pursue careers in a multitude of areas, including but not limited to: welding, hydraulics, pneumatics, electronics, as well as "bumper to bumper" diesel repair. In addition to classroom instruction, students diagnose, service, and repair all aspects of diesel related equipment. This is accomplished using modern "high-tech" scan tools and personal computer interfaces. Diesel engines have become more fuel efficient, lighter, quieter, and environmentally friendly. These factors have created an increased demand for talented and skilled technicians. This program has a long, proud history of student success and service to the community.			
<b>Early Childhood Education</b>	<b>V0824</b>	<b>3</b>	<b>11,12</b>
Students in Early Childhood Education learn the skills needed to work with young children, through working in a fully functional preschool. Obtain infant and child CPR and First Aid Certification. Earn experience hours toward Child Development Associate (CDA) Certification. Prepare for postsecondary schooling in the education field or prepare to enter the workforce in a child care center or as a family child care provider.			
<b>Electronics Technology</b>	<b>V0832</b>	<b>3</b>	<b>11,12</b>
Instruction in this program will develop basic levels of knowledge, understanding and skills essential for entry-level employment in communications, industrial electronics, digital processing, robotics, avionics, biomedical technology and other electronics occupations. This program prepares individuals to apply basic electronic principles and technical skills to the production, calibration, estimation, testing, assembling, installation and maintenance of electronic equipment. Using the latest technology you will build telephones, security alarm systems and rockets. Students in Electronics Technology have the ability to earn college credits at California University of PA.			
<b>Entrepreneurial Studies</b>	<b>V0827</b>	<b>3</b>	<b>11,12</b>
Get prepared for both the workforce and to continue post-secondary education. Learn how to use common business software applications and maintain a business's image. Show your innovation and creativity but using state-of-the-art graphic technology. Use on-line design and business simulations both in the classroom and virtually. Work with local companies to create new ideas, designs and products. Students will participate in several businesses simulations, run and market a school store, and visit several innovative businesses. As seniors, students participate in the Virtual Enterprise International program where they get to develop and market their own product.			
<b>Health Care Careers</b>	<b>V0801</b>	<b>3</b>	<b>11,12</b>
The Health Care Career Program is designed to allow students the ability to gain a preparatory understanding of the health care environment. Through career exploration, students are able to make an informed career decision prior to postsecondary education. The course focuses on anatomy, physiology, and medical terminology. Certifications include American Heart health Care Provider (CPR/AED), American Heart First Aide, and American Heart Pediatric First Aide, and PA Nurse Aide Registration) with clinical experience at nursing facilities.			

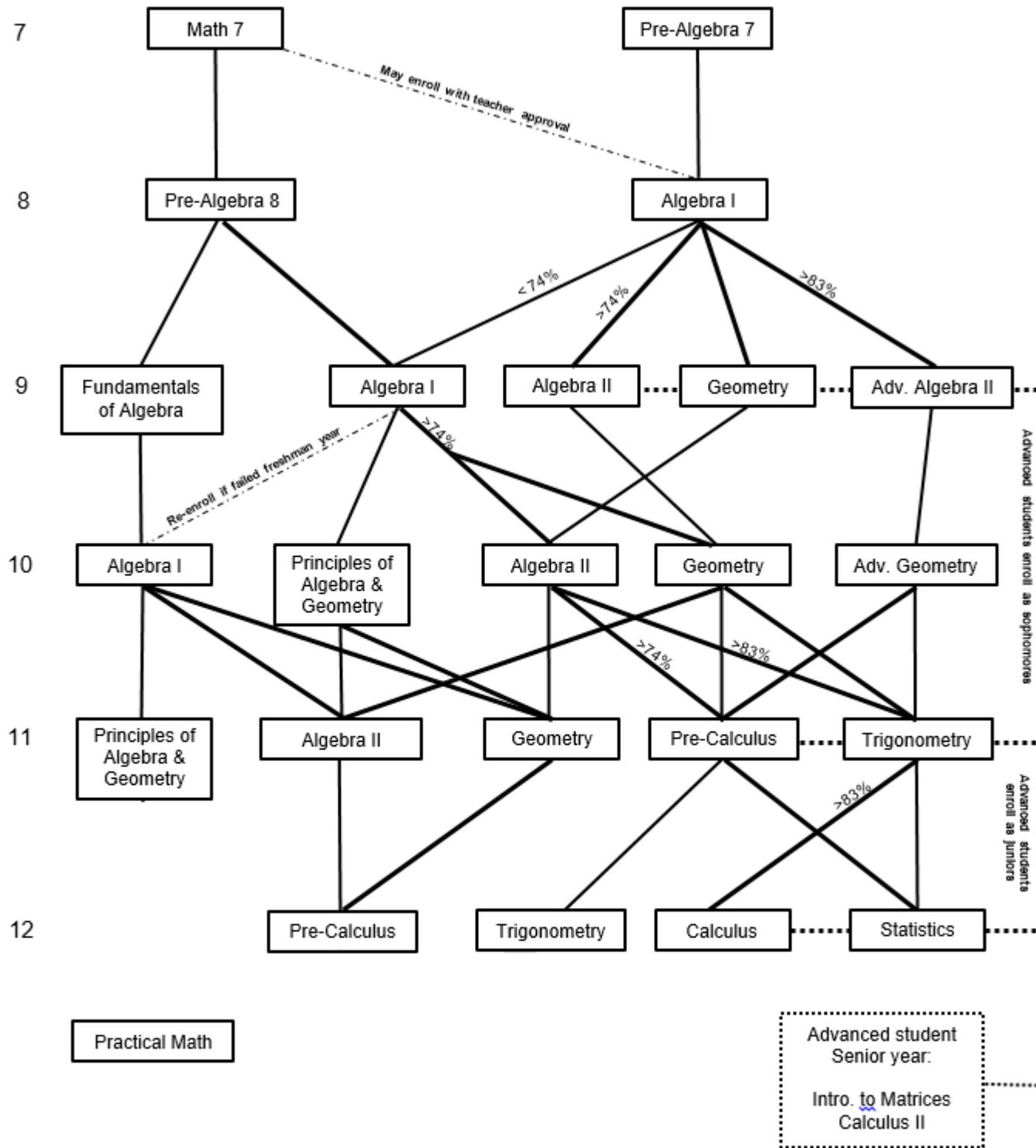
<b>Course</b>	<b>Course Number</b>	<b>Credits</b>	<b>Grade Level</b>
<b>Precision Production Metals</b>	<b>V0833</b>	<b>3</b>	<b>11,12</b>
This course is designed for students to gain knowledge and skills with an emphasis in machining, welding, sheet metal fabrication, hydraulics and pneumatics. Areas are taught through hands-on assignments to develop technical skills. Through a variety of projects, students will be able to plan, setup, operate machines, as well as to manufacture and assemble metals. National Institute for Metalworking Skills (NIMS) certification is available to those enrolled in Precision Production Metals.			
<b>Protective Services</b>	<b>V0828</b>	<b>3</b>	<b>11,12</b>
Learn about the exciting field of public safety and homeland security. You may also earn credits at post-secondary institutions. You can earn several certifications, including Healthcare Provider, First Aid, and National Incident Management Systems (NIMS). You may also become certified as an Emergency Medical Responder. Investigate crime scenes, practice police patrol, and learn emergency communications. Some of the career opportunities available to you are Police, Conservation Officer, Security Officer, Firefighter, and the armed services.			
<b>Welding</b>	<b>V0834</b>	<b>3</b>	<b>11,12</b>
The welding program focuses on the instruction of many industry-specific types of welding, brazing, and soldering techniques. Students will learn Arc, Mig, Tig, Flux-core, and Oxy-fuel Welding. Also students will receive instruction in Plasma and Oxy-Fuel cutting of metals. Blue-print reading will be taught so students can learn to produce real-world products and parts. American Welding Society standards are integrated into this welding curriculum.			

For more information on Mercer County Career Center programs and services, see your guidance counselor or visit their web-site at [www.mccc.tec.pa.us](http://www.mccc.tec.pa.us)

## Lakeview High School Course Offerings

<p><b><u>Applied Arts</u></b>            Fundamentals of Art (Level 1)            Intermediate Art (Level 2)            Studio Art (Level 3)            Advanced Studio Art (Level 4)</p> <p><b><u>Business &amp; Computers</u></b>            Accounting I, II            Business Web Design            Digital Photography I, II            Interactive Media Programming            Technology Tools            Video Editing &amp; Production</p> <p><b><u>Family &amp; Consumer Science</u></b>            FCS I            Culinary Arts II            Culinary Arts III            Living on Your Own            Home Decorating</p> <p><b><u>Language Arts</u></b>            English 9, 10, 11, 12 (Keystone Tested 10<sup>th</sup>)            Honors English 9, 10, 11, 12 (Keystone Tested 10<sup>th</sup>)            Practical English 11, 12            Photojournalism I, II (Yearbook)            Journalism I, II (Newspaper)            Theatre Arts I, II            Creative Writing            Greek Mythology</p>	<p><b><u>Mathematics</u></b>            Fundamentals of Algebra            Algebra I (Keystone Tested)            Algebra II            Principles of Algebra &amp; Geometry            Advanced Algebra II            Geometry            Advanced Geometry            Algebra III/Trigonometry            Pre-Calculus            Calculus I            Calculus II (CHS)            Practical Math (Math in the Workplace)            Statistics (CHS)            Intro to Matrices and Linear Algebra (CHS)</p> <p><b><u>Performing Arts</u></b>            Band            Flag Line            Jazz Band            Chorus            Chamber Singers</p> <p><b><u>Physical Education</u></b>            Physical Education 9            Physical Education 10-12            Lifetime Fitness &amp; Recreational Sports            Weightlifting</p> <p><b><u>Science</u></b>            Physical Science            Academic Biology (Keystone Tested)            Basic Biology (Keystone Tested)            Chemistry I (Academic)            Advanced Biology w/lab            Chemistry II w/lab (Advanced)            Physics w/lab            Forensic Science            Environmental Science            Human Anatomy &amp; Physiology            Wildlife Biology            Ecology            Astro Physics (Astronomy)            Chem III (General Chemistry w/ lab)– (CHS)</p>	<p><b><u>Social Studies</u></b>            US History I            US History II            World Cultures            Economics            Law            Applied Psychology            Psychology            Western European History            World War II            The American Civil War            History through Film            American Political Process (CHS)</p> <p><b><u>Technology/Industrial Arts</u></b>            Intro to Manufacturing &amp; Design            Advanced Manufacturing I, II            Manufacturing Enterprise            Applied Physics            Computer Aided Drafting I, II</p> <p><b><u>Unified Block</u></b>  <b>Grade 9 (Full Year)</b>            Health            Family Living            Public Speaking            Careers</p> <p><b><u>World Languages</u></b>            Spanish I, II, III, IV            French I, II, III, IV            German Culture &amp; Conversation</p> <p><b><u>Internship/Externship</u></b>            Internships:            Elementary School            Tutoring/Writing Center for MS/HS</p>
---	---	---

Grade



- Practical Math can be taken once two math credits have been earned.
- Students may double up in Algebra II and Geometry or Advanced Algebra II and Advanced Geometry with teacher recommendation.
- Statistics can be taken Jr. or Sr. year as long as the student had >83% in Algebra II.

## LAKEVIEW HIGH SCHOOL COURSE DESCRIPTIONS

### Language Arts

Required Courses	Course Number	Credits	Grade Level
<b>English 9</b>	<b>1100</b>	<b>1</b>	<b>9</b>
<p>This course is designed to present students with the opportunity to practice all of the language arts in a variety of contexts and for a variety of audiences through a survey of literature. The course is designed to take a multi-genre approach by exploring classic and contemporary literature with a focus on providing foundational skills to read, appreciate, and analyze literature. The student will also be required to do research-based projects and presentations, including formal research papers.</p>			
<b>Honors English 9- Weighted Level III</b>	<b>1150</b>	<b>1.1</b>	<b>9</b>
<p>This course will also be a survey of literature; while the core curriculum is the same as English 9, honors classes offer a more rigorous pace, coupled with the expectation for students to be motivated self-starters who can work well independently. (Offered only to students meeting pre-determined guidelines). <b>In order to be considered for Honors 9-</b> Students will be assessed on two novel selections. The first including annotations and the second a 2-3 paragraph analysis. A student's work ethic during class, writing skills, and teacher's recommendation are also components of the assessment. Students meeting the aforementioned requirements will then be given the required summer reading assignments. <b>A student must fully complete the summer requirements to participate in the course.</b></p>			
<b>English 10</b>	<b>1200</b>	<b>1</b>	<b>10</b>
<p>This course provides an in-depth study of the great works of American literature. Classic and Contemporary pieces from a variety of genres—short stories, novels, poetry, and dramas, as well as essays, biographies and autobiographies, and Seminal American pieces—will be studied. The Keystone Literature exam will be administered to all students at the conclusion of this course. The student will also be required to do research-based projects and presentations, including formal research papers.</p>			
<b>Honors English 10 – Weighted Level III</b>	<b>1250</b>	<b>1.1</b>	<b>10</b>
<p>This course will also be an exploration of American literature; while the majority of the core curriculum will be the same, honors students will explore some pieces at greater depth, at a more rigorous reading level, or more challenging texts. The Keystone Literature exam will be administered to all students at the conclusion of this course. (Offered only to students meeting pre-determined guidelines). <b>In order to be considered for Honors 10-</b> Students must average an 83% or higher (A/B) in Honors 9 or a 92% or higher (A) in Academic English 9 and submit a letter of intent to include teacher's recommendations based on work ethic, class participation, and writing ability. Students will also take a Keystone-style assessment, as 10<sup>th</sup> grade is the Keystone tested year; a student that earns an 87% or higher, a successful teacher's recommendation, and are of the top 22 scores on the assessment will then be given the required summer reading assignments. <b>A student must fully complete the summer requirements to participate in the course.</b></p>			
<b>English 11</b>	<b>1300</b>	<b>1</b>	<b>11</b>
<p>This course is designed to explore world literature providing student with exposure to perspectives and cultures outside of their own, as well as to learn of literary techniques, structures, and themes reflective of the human experience from a global context. The student will also be required to do research-based projects and presentations, including formal research papers. This course is designed primarily for students planning to continue academic work beyond high school.</p>			
<b>Practical English 11</b>	<b>1325</b>	<b>1</b>	<b>11</b>
<p>This course includes a sampling of a wide variety of types of literature from both American Literature and World Literature. Special emphasis is placed upon high interest level reading, as well as reading applicable to real-world and workplace situations. A speech unit, weekly vocabulary and multiple integrated writing activities will serve to develop students' critical and analytical thinking skills, speaking skills, organizational skills and writing skills. Such activities as constructing sentences, developing paragraphs, writing formal essays, continuing work in the mechanics of English (punctuation, grammar, and spelling), and developing a resume round out the course. This course is designed primarily for students not planning to continue academic work beyond high school.</p>			
<b>Honors English 11 – Weighted Level III</b>	<b>1350</b>	<b>1.1</b>	<b>11</b>
<p>This course will also be an exploration of world literature; while the core curriculum will have commonalities with academic English 11, honors students will read some pieces of greater complexity, be introduced to literary criticism approaches, and analyze texts at a greater depth more independently. (Offered only to students meeting pre-determined guidelines). <b>In ordered to be considered for Honors 11-</b> Students averaging an 83% or higher (A/B) in Honors or a 92% or higher (A) in Academic English through freshman and sophomore years will complete an application packet which includes a study guide, poem, essay, and a teacher recommendation form. Once the application packet is completed, an entrance test will be given: a usage test and a poem analysis. Students meeting the aforementioned requirements will then be given the required summer reading assignments. <b>A student must fully complete the summer requirements to participate in the course.</b></p>			

**English 12** 1400 1 12  
 This is a study of the great works of British Literature, both classic and contemporary, Students will study representational works in various genres; short story, novel, drama, and poetry. This course is designed primarily for students planning to continue academic work beyond high school. The student will also be required to do research-based projects and presentations, including formal research papers.

**Practical English 12** 1425 1 12  
 This course incorporates communication skills necessary for workplace success. One component of the class will examine common composition tasks involving resumes, cover letters, applications, memos, observation reports, agendas, writing directions, and editing. Class participants will also research and cite evidence in the context of constructing persuasive and analytical pieces. Students will also examine current events articles from various sources as well as read other practical nonfiction. Some reading of various age-appropriate fiction will round out the reading component. Students will use technology to deliver presentations involving career research and will compile data from research for other practical individualized subjects. Weekly vocabulary units will be utilized to enhance students' verbal skills. This course is designed primarily for students not planning to continue academic work beyond high school.

**Honors English 12 – Weighted Level III** 1450 1.1 12  
 This course will be an in-depth exploration of British Literature and incorporate intensive writing, close reading, oral presentation, research, and critical analysis to develop collegiate level skills. Strong performance will hopefully lead to college credit or college course exemption and to increased performance on the SAT. Research, analysis and critique will be highlighted. Students will address topics, share ideas, gather information, develop thoughts, organize details, and control language. The goals of each student should be to develop and expand on effective personal writing style, to learn to read a variety of literature critically and analytically, and to learn independent learning strategies.

**In order to be considered for Honors 12-** Students averaging an 83% or higher (A/B) in Honors or a 92% or higher (A) in Academic English through freshman, sophomore and junior years will complete an application packet and a teacher recommendation form. Once the application packet is completed, an entrance test will be given. Students meeting the requirements will then be given the required summer reading assignments. **A student must fully complete the summer requirements to participate in the course.**

Elective Courses	Course Number	Credits	Grade Level
<b>Photojournalism I (Yearbook)</b>	<b>1460</b>	<b>1</b>	<b>10,11,12</b>
This school's yearbook is created in this course open to upper class students. Class size is limited. Class activities include advertising, photography, book design, writing and organizing a yearbook, which will capture our school in book form. Creativity, responsibility and resourcefulness will insure success in this elective course. Student and parent/guardian must sign a Permission Form for Networked Information Resources. <b><u>Instructor permission required.</u></b>			

<b>Photojournalism II (Yearbook)</b>	<b>1462</b>	<b>1</b>	<b>11,12</b>
Level 2 students will mentor younger yearbook staff and will be eligible to hold leadership positions. They will continue to improve skills learned in Photojournalism I. <b><u>Instructor permission required.</u></b>			

<b>Journalism I (Newspaper)</b>	<b>1470</b>	<b>1</b>	<b>10,11,12</b>
The <u>Lakeviewer</u> is a publications class designed as an elective for creative and self-motivated students. The staff requires students with competent skills in at least one of the following areas: journalistic writing, investigating, computers, scanners, photography, and advertising. Submissions are graded. <b><u>Expect to submit a writing or photography sample or to demonstrate computer skills.</u></b> <b><u>Instructor permission required.</u></b>			

<b>Journalism II (Newspaper)</b>	<b>1475</b>	<b>1</b>	<b>11,12</b>
Level 2 students will mentor younger newspaper staff and will be eligible to hold leadership positions. Submissions are graded. <b><u>Instructor permission required.</u></b>			

<b>Theatre Arts I</b>	<b>1820</b>	<b>1</b>	<b>9,10,11,12</b>
The "Introduction to Theater" class will cover basics of staging, acting, set design, lighting, theatrical movements and popular styles of drama. Roles within the theater—such as director, actor, set designer, lighting engineer and prop/stage manager—will all be explored. We will also read and/or view famous plays to better acquaint ourselves with popular works. Active class participation is a must! Upon completion of this course, you will know the "lingo" of the theater to help you better understand and appreciate "the stage."			

<b>Theatre Arts II</b>	<b>1825</b>	<b>1</b>	<b>10,11,12</b>
Theatre helps in multiple aspects of life, including public speaking and literary analysis. This course will study the range of experiences related to the art of acting and heighten the love of acting and anything theatre! Through lecture, discussion, demonstration and film, students will experience and explore acting. Students in this course will study, write, research, critique, create, design, perform and participate in a variety of theatre-based learning experiences. Students will be involved with self and peer evaluations in oral critiques and written forms through assignments and will prepare for final project performances. Prerequisite: Theatre Arts I			

**Creative Writing** 1830 .5 10,11,12  
 This semester course is focused on writing creatively and expressively for many genres, including prose, poetry, short stories, satire and playwriting. Students create original essays, poems, and short stories in this course, which focuses on the four-step writing process model. They read mentor pieces and then integrate their impressions of these texts with their own experiences to compose their own pieces. Students will write about topics they find engaging as they practice writing on the following themes: narration, definition, process analysis, cause and effect, and comparison/contrast. The teacher supplies detailed suggestions for revision with each assignment. This feedback helps students learn how to improve self-expression and self-editing skills.

**Greek Mythology** 1840 .5 10,11,12  
 This semester course aims to help students acquire substantial familiarity with the principal, classical myths and the ways those myths are represented in literature and popular culture. After taking this course, you will be able to identify the major (and many of the minor) characters from Greek mythology. The student will be able to describe the ancient literary sources for classical mythology; explain the use of the most influential theories about and the approaches to mythology; describe and analyze, in writing, mythological themes and structures in literature, art, and films; compare different myths, or different versions of the same myth, and discuss common and different elements; and relate the knowledge you have obtained throughout this course to your own experience, including an ability to create your own myths and recognize mythic elements in the world around you.

**Social Studies Department**

Required Course	Course Number	Credits	Grade Level
<b>US History I</b>	2100	1	9
A study of the development of the United States from the English Colonial Period to Post-Civil War America will be covered. Major topics of study include the 13 English Colonies, American Revolution, fundamentals of U.S. Government under the U.S. Constitution, Westward U.S. Expansion, Pre-Civil War America, and the American Civil War.			

<b>US History II</b>	2200	1	10
This course will study U.S. History from the Progressive Era to Present Day. History, government, economics, sociological development of the United States will be covered. In-depth studies of the 1920's, the depression, FDR's New Deal, and the Cold War. The major wars and modern day change will be featured in this course.			

<b>World Cultures</b>	2300	1	11, (12 MCCC only)
This first part of this course will have components on regions of Asia, India and Africa. People, customs, religions, social conditions and economics of each of these regions will be studied. The second portion of the course will focus on regions in the Middle East, North and South America, Europe, and the Commonwealth of Independent States (former Soviet Union)			

<b>Economics</b>	2400	.5	12
The behavior of individuals and institutions engaged in production, exchange, and consumption of goods and services will be studied. Economic systems, markets, scarcity and choice, supply and demand, work and earnings are topics of study. Manufacturing Enterprise may be substituted for this course (see Technology/Industrial Arts Department).			

Elective Courses	Course Number	Credits	Grade Level
<b>The American Civil War</b>	2420	.5	10,11,12
This course covers history surrounding the Civil War and Reconstruction from 1820-1877. Students will focus on issues and events that faced the nation and led to the conflict. Students will also conduct a thorough study of the war including military strategies, battles, and leaders. The course will additionally address the consequences of the war and the effects of Reconstruction on the nation.			

<b>Law</b>	2430	.5	10,11,12
This course provides a top down view on the American legal system. The course begins with the historical foundations of the American legal system and includes studies in Constitutional, Criminal, and Civil law.			

<b>World War II</b>	2445	.5	10,11,12
This course examines the history of World War II from 1933 to 1945. It will take an in-depth investigation of the significant individuals associated with the war, the conflicts and battles of the war, and the eventual outcome and consequences of the war. Students will also participate in a comprehensive analysis of the lasting global impacts of the war up to the present time.			

<b>History Through Film</b>	<b>2450</b>	<b>.5</b>	<b>10,11,12</b>
History Through Film is a course in which students use films as historical documents or resources. The course will challenge students to critically analyze selected films for a deeper understanding of various people, periods, and events in history. In doing so, students are expected to be actively engaged thinkers while viewing the films, contemplating the films, and discussing the films. Through their studies, students will hone their critical thinking skills. This course will be writing intensive.			
<b>Western European History</b>	<b>2460</b>	<b>.5</b>	<b>12</b>
This course is designed for students who have completed World Cultures and want a more in depth discussion of Western European History. Topics may include Ancient Greece and Rome, the Middle Ages, the Renaissance, the Enlightenment and the French Revolution.			
<b>Psychology</b>	<b>2470</b>	<b>1</b>	<b>11,12</b>
This course is designed for college bound students. It is to provide a general introduction to the area of psychology to prepare students for an entry-level college course.			
<b>Applied Psychology</b>	<b>2480</b>	<b>.5</b>	<b>11,12</b>
This course is designed to help students apply psychological principles to their lives. Topics include, but are not limited to Sleep, Memory, Stress Management, and Life Planning.			
<b>American Political Process (CHS)</b>	<b>D0240</b>	<b>3 CHS/1.1 HS</b>	<b>11,12</b>
This is an introductory college level course in American politics. The purpose of the course is to teach students both about the American political system and about broad concepts social scientists use to study politics.			

## Mathematics Department

Course	Course Number	Credits	Grade Level
<b>Algebra I</b>	<b>3100</b>	<b>1</b>	<b>9,10</b>
Students in this course will study the vocabulary and principles of algebra including number sets, operations of polynomials, linear equations and inequalities, functions graphing, radicals, quadratic equations and analysis of verbal problems. Algebra I is to prepare a foundation for the study of Geometry, Algebra II, and Pre-calculus. <b>This is a Keystone Tested Course.</b>			
<b>Fundamentals of Algebra</b>	<b>3105</b>	<b>1</b>	<b>9</b>
Students in this course will study the vocabulary and principles of algebra including number sets, operations of polynomials, linear equations and inequalities, functions and graphing. This course is oriented toward application and practice through activities and real life problems. Students completing this class will proceed to Algebra I and the Keystone Exam.			
<b>Algebra II</b>	<b>3120</b>	<b>1</b>	<b>9,10,11,12</b>
Algebra II, for some, fulfills the requirements of two years of algebra for their chosen career; while for others it provides the foundation of future mathematic studies. Algebra II is taught as an extension of Algebra I. It includes the operations of polynomials, the study and graphing of linear and quadratic equations and inequalities, exponents, radials and logarithms, complex numbers, matrices and determinants and number sequence and series. <b>Prerequisite: "C" or better in Algebra I.</b>			
<b>Advanced Algebra II</b>	<b>3125</b>	<b>1</b>	<b>9</b>
This accelerated course will cover the standard Algebra II content with greater intensity and emphasis on problem solving skills. The same topics will be mastered but at a greater depth in preparation for Trigonometry and Calculus. <b>Prerequisite: "B" or higher in 8<sup>th</sup> grade Algebra I. Grade 9 only. NO 10-12 grade students.</b>			
<b>Geometry</b>	<b>3200</b>	<b>1</b>	<b>9,10,11,12</b>
This course emphasizes the further development of skills, techniques and connections of geometric concepts. Topics include but are not limited to: foundations of geometry, proofs and logic, lines, transformations, probability, polygons, similarity, 2-D and 3-D measurement, circles and basic trigonometry. <b>Prerequisite: Algebra I. Can be taken with Algebra II with teacher approval.</b>			
<b>Principles of Algebra and Geometry</b>	<b>3205</b>	<b>1</b>	<b>10,11,12</b>
For students needing additional Algebra instruction and advanced preparation for the winter Keystone exam, as well as an introduction to basic geometry concepts. <b>Prerequisite: Algebra I.</b>			
<b>Advanced Geometry</b>	<b>3210</b>	<b>1</b>	<b>9,10,11,12</b>
This accelerated course will cover the standard Geometry content with greater intensity and emphasis on proof in preparation for Trigonometry and Calculus. <b>Prerequisite: "B" or higher in 8<sup>th</sup> grade Algebra I.</b>			
<b>Algebra III/Trigonometry - Weighted Level III</b>	<b>3300</b>	<b>1.1</b>	<b>10,11,12</b>
The Algebra part of this course will be a review and extension of Algebra II. Trigonometry is that branch of mathematics that is concerned with the properties and application of the circular functions. In the course the two are unified and studied together. If your plans for college include anything requiring math, this course is a must. Some have found that they need the Trigonometry for future work in subjects in college other than in math or engineering courses. For example – many colleges require Trigonometry for business administration, chemistry and other related science courses. <b>Prerequisite: "B" or better in Algebra II.</b>			
<b>Practical Math (Math in the Workplace)</b>	<b>3320</b>	<b>1</b>	<b>11,12</b>
In Practical Math students learn about the many practical applications of math in everyday life. Topics of study in this course include statics, probability, statistical graphs, geometry, finance, budgeting, and mathematical modeling. Project units allow students to apply and extend their math skills for problem solving. <b>Prerequisite: Two other math credits earned</b>			
<b>Pre-Calculus - Weighted Level II</b>	<b>3400</b>	<b>1.05</b>	<b>11,12</b>
Functions, trigonometry functions, logarithmic functions, conic sections, sequences, probability and statistics are some of the areas that will be studied. This class is designed to prepare the student for college level mathematics. <b>Prerequisite: "C" or better in Algebra II.</b>			
<b>Calculus I - Weighted Level III</b>	<b>3420</b>	<b>1.1</b>	<b>11,12</b>
In Calculus we review many of the essentials of math and teach the fundamentals of elementary analytic geometry and calculus. If you are going on in any field that requires math, you must seriously consider this course. <b>Prerequisite: "B" or better in Algebra III/Trigonometry.</b>			

Course	Course Number	Credits	Grade Level
<b>Statistics/(CHS Statistics) - Weighted Level III</b>	<b>D0200</b>	<b>3 CHS/1.1 HS</b>	<b>11,12</b>

This course teaches methods and terminologies of descriptive and inferential statistics. Students who complete this course will be able to conduct their own analyses of standard one-sample or two-sample data sets, follow statistical reasoning, and read statistical reports with understanding. Introductory topics in linear regression, analysis of variance and contingency table analysis also will be covered. **Prerequisite is a grade of A or B in Algebra II.**

<b>Introduction to Matrices and Linear Algebra – Weighted Level III (CHS)</b>	<b>D0220</b>	<b>3 CHS/1.1 HS</b>	<b>12</b>
---	--------------	-------------------------	-----------

The principal topics of the course include vectors, matrices, determinants, linear transformations, Eigen values and Eigen vectors, and selected applications. **Prerequisite is successful completion of Calculus 1 with a grade of C or higher.**

<b>Calculus II/(CHS Calculus 1)</b>	<b>D0230</b>	<b>3 CHS/1.1 HS</b>	<b>12</b>
-------------------------------------	--------------	-------------------------	-----------

Calculus II is designed to be an extension of the Calculus I course. It is intended for the very most advanced math students who have completed the Calculus I course with a high degree of success. Topics covered will include an initial review of prerequisite skills and concepts, differentiation and integration of transcendental functions, advanced integration techniques, and various applications thereof. **Prerequisite is a grade of A or B in Calculus I.**

### Science Department

Course	Course Number	Credits	Grade Level
--------	---------------	---------	-------------

<b>Physical Science</b>	<b>4100</b>	<b>1</b>	<b>9</b>
-------------------------	-------------	----------	----------

The first portion of this course is an introduction to the concepts in Chemistry. Students will study measurement, observation of properties of matter, reactions among substances, and the basic scientific theories which explain the behavior of matter. Throughout the course, students will use technology to organize and communicate their observations. Problem-solving skills are used in applying mathematical formulas to a variety of practical situations and in analyzing data from experiments. Students will spend considerable time in the laboratory learning concepts by experience. The second section of this course is an introduction to the concepts in Physics. Students will study basics of the Physical world, including motion of objects according to Newton's Laws of Motion, and investigate energy in the forms of Heat, Light & Sound. Students will use technology to organize & communicate their observations. Problem-solving skills are used in applying mathematical formulas to a variety of practical situations & in analyzing data from experiments. Students will spend considerable time in the laboratory learning concepts by experience.

<b>Academic Biology</b>	<b>4200</b>	<b>1</b>	<b>9,10</b>
-------------------------	-------------	----------	-------------

Students who plan to continue their schooling beyond high school, regardless of the field they plan to enter should take academic biology. Anyone planning to enroll in academic science course in 11<sup>th</sup> or 12<sup>th</sup> grade should elect this biology course. Patterns of structure, function and change in living organisms are emphasized. Interactions among plants and animals and their environments are also investigated. **Keystone Tested Course.**

<b>Basic Biology</b>	<b>4210</b>	<b>1</b>	<b>10</b>
----------------------	-------------	----------	-----------

This course is designed for the student whose formal education will end with high school graduation. Concepts are developed through laboratory investigations and discussion. The major ideas covered are energy relationships, ecological relationships, reproduction and development and patterns of inheritance. **Keystone Tested Course.**

<b>Chemistry 1 – Weighted Level II</b>	<b>4300</b>	<b>1.05</b>	<b>10,11,12</b>
--	-------------	-------------	-----------------

Academic Chemistry is an elective advanced science course for college preparatory students who are pursuing careers in science, health, engineering, architecture, math, education and many other fields. Concepts of chemical science are developed through academic and laboratory exercises. Pre-requisite/Recommendation: "C" or better in Algebra II or enrolled currently in Algebra II.

<b>Chemistry 2 w/lab– Weighted Level III</b>	<b>4310</b>	<b>1.5</b>	<b>11,12</b>
--	-------------	------------	--------------

Advanced Chemistry is a college preparatory course designed to prepare students for continuing education. The class will cover topics including: Acids and Bases, Reaction Kinetics, Chemical Equilibrium, and Organic Chemistry. Lectures, discussions, note taking, projects, and problem solving will all be major parts of the course. Special emphasis will be placed on laboratory exercises. Homework is given most evenings along with lab write-ups after each lab in class. Students should be willing to spend time most evenings reviewing notes and doing homework. Grades are weighted and attendance and class participation are also accounted for.

<b>Chemistry 3 w/lab/CHS Gen Chem – Weight Level III</b>	<b>D0110</b>	<b>1.5</b>	<b>11,12</b>
--	--------------	------------	--------------

This is the first half of a two-term introduction to general chemistry. Topics include atomic theory, molarity, gases and kinetic theory, thermochemistry, electronic structure and the periodic table, relationships between phases, ionic solutions and acid/base theories, redox reactions, carbon chemistry, rates of reactions, chemical equilibria, and thermodynamics. This course requires laboratory sessions and exams on the Pitt campus. Transportation will be provided. **Pre-requisite: High school chemistry.**

<b>Advanced Biology w/lab Weighted Level III</b>	<b>4400</b>	<b>1.5</b>	<b>11,12</b>
This course provides additional background and laboratory experiences for those students who intend to pursue a career in any field related to biology as well as for those students who desire a better understanding of themselves and the living world around them. <b>Prerequisite/Recommendation: Successful completion of Academic Biology and Chemistry or instructor permission.</b> This course will also have a lab period that will meet twice weekly. <b>Students must have passed Biology Keystone Exam.</b>			
<b>Physics w/ lab-Weighted Level III</b>	<b>4420</b>	<b>1.5</b>	<b>11,12</b>
Physics is an elective laboratory science. Topics to be covered during the course include motion of objects, classical mechanics (Galileo and Newton), momentum and energy in the form of light, sound, heat, and electricity. It is advisable that the student possess a strong mathematical background. Students should elect this course if they are interested in attending college or working in a science-related occupation. <b>Prerequisite/Recommendation: "C" or better in Chemistry. Successful completion of Algebra 3/Trig or Pre-calc.</b>			
<b>Forensic Science</b>	<b>4500</b>	<b>.5</b>	<b>10,11,12</b>
This course is an interdisciplinary class involving Biology, Anatomy, Chemistry, Physics, and Earth Science with an emphasis in complex reasoning and critical thinking. In addition, students most incorporate use of technology, communication skills, language arts, art, mathematics, and social studies. Topics include introduction to forensics (observation, forensic history, careers, crime scene investigations), physical evidence, (glass, sand, soil), DNA, documentation (handwriting, paper and ink analysis, fraud), and biology (osteology, odontology, archeology, botany, and entomology), toxicology (drugs, alcohol), trace evidence (hair, fiber), and serology (blood typing, genetics, characteristics and differentiations, spatter patterns). This will be a semester course. <b>Students must have completed Biology and passed Biology Keystone Exam.</b>			
<b>Environmental Science</b>	<b>4510</b>	<b>.5</b>	<b>10,11,12</b>
Environmental Science is an activity-based course designed to help students understand the interactions between the different elements of the environment. The course will also make the students aware of environmental problems on both local and global levels. The activities will include conventional laboratory exercise, workbook exercises, and projects. Several activities such as water quality testing will be performed both in the lab an outdoors. The course will deal with environmental history, science systems, biodiversity, climate, ecology, agriculture, use of resources, types of pollution and the disposal of waste. Because environmental science is an integrated science, students must have satisfactorily completed a Biology course. Students will be evaluated through the use of examinations, lab work, lab behavior, written lab reports, and projects. This will be a semester course. <b>Students must have completed Biology and passed Biology Keystone Exam.</b>			
<b>Human Anatomy &amp; Physiology-Weighted Level II</b>	<b>4520</b>	<b>1.05</b>	<b>11,12</b>
This course is designed to provide students with an in-depth background in human anatomy (structure) and physiology (function). It is strongly recommended for students who have an interest in nursing, or other health careers. Emphasis is placed on skeletal, muscular, nervous, endocrine, digestive, respiratory, reproductive, cardiovascular, urinary, and immune systems. Students must be able to work well in a supervised lab. To elect this course, students must have completed Biology, and should have completed Chemistry. This is a full year class. <b>Students must have completed Biology and passed Biology Keystone Exam.</b>			
<b>Wildlife Biology</b>	<b>4530</b>	<b>.5</b>	<b>10,11,12</b>
Wildlife biology is an elective course designed to provide coverage of topics such as Ornithology, Mammology, Herpetology, Ichthyology. This will be supported by supplemental readings where students gain a broad understanding of the fields of wildlife and conservation biology. They will also gain an understanding of each studied species' natural history. Its landscape and ecological context, as well as its relationship with humans, conservation biology and wildlife management. The exact content will depend on the season when the course occurs (fall or spring semester) and the expertise of the instructor. (Water Quality testing and Trout stocking) This will be a semester course. <b>Students must have completed Biology and passed Biology Keystone Exam.</b>			
<b>Ecology</b>	<b>4540</b>	<b>.5</b>	<b>10,11,12</b>
We will study Earth's ecosystems, and natural resources, how humans interact with other species and use natural resources, and some of the challenges we humans face in sustaining life on Earth for future generations. Students will obtain a detailed understanding of ecosystems and human interactions with ecosystems. The lab component will feature basic tests of water, soil, energy consumption, waste and environmental health. Students will employ the skills necessary to examine various scientific explanations, acquiring knowledge gained through lab work and the use of support materials provided by the text, technology, field trips and library resources. <b>Students must have completed Biology and passed Biology Keystone Exam.</b>			
<b>Astro-Physics (Astronomy)</b>	<b>4550</b>	<b>1</b>	<b>11,12</b>
Astro-Physics is a course designed to introduce students to the fascinating world of astronomy. It is for students who desire to learn about phenomenon beyond the scope of the earth using a minimal amount of mathematics. The topics that may be included, but are not limited to include space flight, the solar system, black holes, stars, comets, asteroids, galaxies, cosmology, and the universe.			

**World Language Department**

Course	Course Number	Credits	Grade Level
Spanish I	5210	1	9,10,11,12
Spanish II	5220	1	10,11,12
Spanish III	5230	1	10,11,12
Spanish IV - Weighted Level II	5240	1.05	11,12

The purpose of these courses is to gain reasonable knowledge in speaking, reading, writing and understanding the Spanish language. The student will also learn about Spanish culture, history, art, music and literature. Spanish is useful to both students who are planning to attend college as well as to those who are not. Without a college education, Spanish is very useful in such careers as bilingual secretaries, social work and many others. In addition, the knowledge of Spanish is helpful in our own country, which has millions of Spanish-speaking people. Along with a college education, Spanish is useful in numerous international careers such as translators, interpreters, international business and government as well as many others. The student may advance to Spanish II, III, IV. **Pre-requisite/Recommendation for Spanish I: "C" or better in 8<sup>th</sup> grade English.**

French I	5310	1	9,10,11,12
French II	5320	1	10,11,12
French III	5330	1	10,11,12
French IV - Weighted Level II	5340	1.05	11,12

The purpose of these courses is to gain reasonable knowledge in speaking, writing, reading, understanding the French language. The student will also learn about French culture, history, art, music and literature. Textbook study is enriched through the use of maps, photographs, slides, magazines, videos, cassette tapes, and cooking demonstrations. French is interesting and useful for students who are planning to attend college, as well as for those who are not. Recent statistics show that a person who can speak a second language often improves his chances of finding a job. Foreign language mastery is a kind of insurance for many careers both skilled and professional. Language also expands the pleasures of travel, good literature and the arts. The student may advance to French II, III, IV. **Pre-requisite/Recommendation for French I: "C" or better in 8<sup>th</sup> grade English.**

German Culture and Conversation	5400	1	9,10,11,12
---------------------------------	------	---	------------

The purpose of this course is to understand the rich history of the language and the country. Germany is a world leader and the most influential on the European continent. The economy of Germany continues to grow even though it has faced many challenges. Industry remains strong, which would allow employment opportunities for many different professions. The world continues to become more and more global. Our knowledge of these important and valuable facts could precipitate growth within the economy of the United States of America. **Pre-requisite/Recommendation for German Culture and Conversation: "C" or better in previous year English.**

**Unified Block – Grade 9**

This period of class work is required of all freshmen and each course is 9 weeks in length. The following summarizes activities:

Course	Course Number	Credits	Grade Level
Health	UB910	.25	9

Health will also be taught in this course covering the essential good health practices.

Family Living	UB970	.25	9
---------------	-------	-----	---

This required course includes such topics as person development from birth to old age, dating, marriage, teen pregnancy, and family relationships/dynamics. A community project is also included.

Public Speaking	UB985	.25	9
-----------------	-------	-----	---

This course is an introduction to public speaking and is meant to give students an overview of experiences to help them lose their fear of speaking in front of groups. They will learn how to plan, research, compose, practice and deliver speeches and presentations. They will learn about the different types of speeches and will deliver each one. The students will study the process of communication and may study mass media, act out skits, debate one another, read dramatically and communicate using verbal and non-verbal methods.

Careers	UB990	.25	9
---------	-------	-----	---

This course emphasizes the importance of furthering one's education and training as a path to a successful career. Students will use self-survey methods to discover occupations which match their interests, abilities, and which they find promising. Research is performed to find more specific information about these occupations (employment outlook, salary expectations, and lifestyles). The final segment of the course is devoted to job skills such as applications networking, interviewing, attendance and work behavior, and dealing with financial matters.

**Physical Education Department**

Course	Course Number	Credits	Grade Level
<b>Physical Education 9</b>	<b>6450</b>	<b>.5</b>	<b>9</b>
In this required course, students will analyze the effects of regular participation in moderate to vigorous physical activities in relation to health improvement, stress management, disease prevention and weight management. They will analyze factors that affect the responses of body systems during physical activities, including: exercise location, individual fitness status cardiorespiratory fitness, muscular endurance, muscular strength and flexibility. Students will describe and apply the components of skill-related fitness to movement performance, concepts of motor skill development, skill improvement, principles of training, apply biomechanical principles to complex movements and describe and apply game strategies to complex games and physical activities such as soccer, flag football, basketball, volleyball, fitness, dance, aerobics, hockey, badminton, archery, bowling, golf, tennis, softball, team games and track and field. Required for all 9 <sup>th</sup> grade students.			
<b>Physical Education 10-12</b>	<b>6455</b>	<b>.5</b>	<b>10,11,12</b>
In this required course, students will continue the concepts outlined in PE 9 to evaluate and engage in an individualized physical activity plan that supports achievement of personal fitness and activity goals and promote life-long participation. They will analyze the social, physiological and psychological effects of regular participation in moderate to vigorous physical activities. Students will assess and use strategies for enhancing adult group interaction in physical activities, apply knowledge of movement, skill-related fitness and movement concepts to identify and evaluate physical activities that promote personal lifelong participation. Students will participate in games and physical activities such as soccer, flag football, basketball, volleyball, fitness, dance, aerobics, hockey, badminton, archery, bowling, golf, tennis, softball, team games and track and field. Required once, sometime from 10 <sup>th</sup> -12 <sup>th</sup> grade.			
<b>Lifetime Fitness &amp; Recreational Sports</b>	<b>6470</b>	<b>.5</b>	<b>10,11,12</b>
Physical education elective class focusing on a balance between weightlifting and other lifetime fitness habits.			
<b>Weightlifting</b>	<b>6475</b>	<b>.5</b>	<b>10,11,12</b>
Physical education elective class focusing on muscular strength, endurance, flexibility, and safety. Weight room safety, warm-up/cool down procedures, lifting technique and safety for all lifts, major muscle identification, and individual goal setting are all important components in this course. In addition, students will monitor and improve their fitness levels.			

**Performing Arts Department**

Course	Course Number	Credits	Grade Level
<b>Band</b>	<b>PA0850</b>	<b>1</b>	<b>9,10,11,12</b>
<u>This is a one-year course.</u> Students are admitted to Senior High Band after successfully demonstrating the mastery of instrument fundamentals by audition. Musical development will continue through the study of music from various cultures, styles and periods. Small ensembles will form throughout the year. Permission of the instructor of audition is required to participate in small ensembles. Students, who participate in band during the current year but do not wish to continue in band next year, <b><u>must have a parental conference with the band director</u></b> in order to withdraw. <b><u>The last day to arrange to drop band is one week before band camp.</u></b> A withdraw failing will result if proper procedure is not followed. <b><u>Band students will be required to attend a two-week bank camp in August.</u></b>			
<b>Band Flag Line (Sailor Silks)</b>	<b>PA0851</b>	<b>.25</b>	<b>9,10,11,12</b>
Band front consists of students in the flag line who rehearse with the marching band during the marching band season in the fall. Practices and performances outside of the school day are required. Students learn cooperation and team work. Students must try-out and be selected in the spring to participate in the fall.			
<b>Chamber Singers</b>	<b>PA0865</b>	<b>.5</b>	<b>9,10,11,12</b>
This group is an extension of the full Chorus. You must be a member of the Chorus in order to audition for Chamber Singers and you must be accepted by your audition in order to schedule Chambers. This group is also the group that travels to different performances at Christmas time and spring. The music learned by this group is also more challenging than the traditional chorus music. Please see Mrs. Patton if you wish to audition. The class meets on an A/B schedule opposite of Chorus. There are some evening rehearsals required.			
<b>Chorus</b>	<b>PA0860</b>	<b>.5</b>	<b>9,10,11,12</b>
Chorus is an elective vocal class that meets on an A/B schedule all year. Two performances, one at Christmas and one in the spring, are scheduled. Various ensemble groups form and will have additional performances during the year. There are some evening rehearsals required.			
<b>Jazz Band</b>	<b>PA0852</b>	<b>1</b>	<b>9,10,11,12</b>
This elective is for students interested in participating in Jazz Band. It will provide an opportunity for students to be exposed to different jazz styles such as swing, be-bop, blues-rock, and funk. You must be a member of band to participate in Jazz Band.			

**American Music-Pop to Rock****PA0870****1****10,11,12**

This course covers the history of rock music from its origins in the blues and American country music to the diverse rock styles heard today. Analysis of performances and compositional styles of several familiar rock stars is included. Drake, John Legend, Elvis Presley, Beatles, Alicia Keys, NIN, among others. Social and political influences will be addressed, but the focus will be on the music itself. Part I and Part II. Part II includes a field trip to the Rock n Roll Hall of Fame Museum in Cleveland.

### Applied Arts Department

Course	Course Number	Credits	Grade Level
<b>Fundamentals of Art (1)</b>	<b>8800</b>	<b>1</b>	<b>9,10,11,12</b>
This is an introductory studio course that will prepare student for further art production experiences. Students will be introduced to skills, media, terms and techniques that are utilized in subsequent art electives. Students will learn the elements and principles of design and will explore both two-dimensional and three-dimensional mediums including: drawing, painting ceramics and sculpture.			
<b>Intermediate Art (2)</b>	<b>8802</b>	<b>1</b>	<b>10,11,12</b>
This is a level 2 art course which builds upon the foundational skills learned in Fundamentals of Art (1). As in the level 1 course, Intermediate Art too will explore the Elements and Principles of Art as they relate to both two-dimensional and three-dimensional art. Additionally, this course will place greater stress on examining cultural impact and history of art works, art movements and artists. Prerequisite:			
<b>Studio Arts (3)</b>	<b>8803</b>	<b>1</b>	<b>11,12</b>
This is a level 3 art course, building on the skills learned in previous courses. Students will produce two-dimensional and three dimensional works demonstrating a more developed understanding of the Elements and Principals of art. Students will continue to examine the cultural impact and history of art, with a greater stress placed on the critical process.			
<b>Advanced Studio Arts (4)</b>	<b>8804</b>	<b>1</b>	<b>12</b>
In this course, students will be given slightly greater creative freedom, but with each project must submit a proposal, maintain a sketchbook with copious notes and sketches that reflect forethought and development of project idea. Additionally, an artist statement must be submitted with each completed project. The course will cover art production, art history, art criticism and aesthetics.			

### Business/Computer Department

Course	Course Number	Credits	Grade Level
<b>Interactive Media Programming</b>	<b>7010</b>	<b>.5</b>	<b>9,10</b>
Students will learn basic programming skills and use them to enhance assigned multimedia projects. This course is required and must be taken in 9 <sup>th</sup> or 10 <sup>th</sup> grade.			
<b>Business Web Design</b>	<b>7020</b>	<b>.5</b>	<b>9,10</b>
In this course, students will explore Google Sites and web page design as a way of communicating and placing information on the Internet. Students will learn how to: begin a web site, add text and titles, use color, prepare photos and graphics for the web, etc. It is intended to give students an introduction to web page creation and its application in the world of business. This course is required and must be taken in 9 <sup>th</sup> or 10 <sup>th</sup> grade.			
<b>Technology Tools</b>	<b>7030</b>	<b>.5</b>	<b>11,12</b>
This course will focus on technology in the 21 <sup>st</sup> century. Students will learn about the history of technological developments, computing hardware, networking, operations and terminology. Students will also learn and code simple programs using the Python computing language. This course is required and must be taken in the 11 <sup>th</sup> or 12 <sup>th</sup> grade year.			
<b>Accounting I</b>	<b>7040</b>	<b>1</b>	<b>10,11,12</b>
This is an introductory accounting course. Students will learn valuable accounting skills for use on a personal basis or for more advanced business use. The complete accounting cycle is covered as well as the automated accounting program. Students will be able to record business transactions and later input this information in the computer. Those who wish to pursue business in a postsecondary level will have the advantage of a good foundation on which to continue studying business and accounting.			
<b>Accounting II</b>	<b>7045</b>	<b>1</b>	<b>11,12</b>
This is a level 2 accounting course, which will build on the foundational skills learned in Accounting I. Prerequisite: Minimum of the grade of B in Accounting I.			
<b>Digital Photography I</b>	<b>7050</b>	<b>.5</b>	<b>10,11,12</b>
This course will cover the basic fundamentals of photography. Students will learn how to capture light, color, and other design elements into a picture. Students will use simple point & shoot cameras as well as more advanced DSLR cameras. Students will also learn basic photo editing processes to enhance or add creative elements to their photographs. Equipment responsibility form is required.			

**Digital Photography II** 7055 .5 10,11,12  
 This course will continue to cover the elements of photography. Students will have more rigorous and detailed assignments. This course will continue into more complex photo editing procedures. Students will have to spend time outside of the school day taking and editing photos. Equipment responsibility form and a personal 16GB SD card are required. Pre-requisite: Digital Photography I with grade of B or better.

**Video Editing and Production** 7060 1 10,11,12  
 Have you ever wanted to put your creativity onto film? Video Editing and Production will be structured like a work environment. Students will be expected to work in teams, to collaborate with one another, to delegate production roles, and meet deadlines. Students are expected to put forth their best effort. Time outside of school to complete projects will be required. Students will receive a DVD of their semester's work. Students will produce video announcements for the school. Pre-requisite: Digital Photography I

**Family and Consumer Science Department**

Course	Course Number	Credits	Grade Level
<b>Intro to Family Consumer Science (1)</b>	<b>8000</b>	<b>1</b>	<b>9,10,11,12</b>
<p>This introductory course focuses on foods, caring for a family and preparing students for success in the home, workplace and community. Home management; including basic cooking techniques and foods, planning nutritious and affordable meals, housing options, caring for, cleaning and decorating a home, budgeting time and basic sewing are included. Students will have opportunities throughout the course to apply their learning through hands-on kitchen labs. They will also look at the food supply and analyze the influence of food engineering/technology trends, new food safety laws, the government's role in safeguarding our food supply and the impact of food addictions and eating disorders.  <b>You must take this course before you take any other cooking class.</b></p>			
<b>Culinary Arts II (Advanced Foods)</b>	<b>8002</b>	<b>1</b>	<b>10,11,12</b>
<p>This semester course will enhance and expand on food concepts covered in FCS 1 (Basic Foods). Some of the units covered in this class will be Quick Breads, Pastries, Foreign Foods, Holiday Traditions, and Soups. The course may also incorporate restaurant style food presentation, serving and clean up. <b>Pre-requisite: FCS 1 (Basic Foods)</b></p>			
<b>Culinary Arts III (Creative Cooking and Baking)</b>	<b>8003</b>	<b>1</b>	<b>10,11,12</b>
<p>This course will enable all students to learn how to express themselves creatively through food. It offers insight into personal and professional opportunities in the culinary skills. Some of the units covered in class will be Cupcake Wars, Soup Off, Casserole Concoctions, and more! We will explore many unique and creative ways to cook and bake and will incorporate restaurant style food planning and preparation, presentation, serving, clean up and money management. <b>Pre-requisite: FCS 1 (Basic Foods )</b></p>			
<b>Home Decorating</b>	<b>8010</b>	<b>.5</b>	<b>10,11,12</b>
<p>Even if you're not a born decorator, this detailed course will provide enough general knowledge about the field to have you decorating (or redecorating) with confidence. When you complete the course, you will have a better feel for: Line, balance, harmony, rhythm, and colors, Theme, scale, proportion, balance, harmony, rhythm, focus, and lighting, treating flooring, walls, and ceiling in a variety of ways, Using curtains, drapes, shades, blinds, shutters, and other window treatments, Furniture styles, Accessorizing various spaces, How to evaluate decorating myths and rules. DIY Projects done throughout the semester as well. Students may be required to bring in some items for projects from time to time.</p>			
<b>Living on Your Own</b>	<b>8050</b>	<b>.5</b>	<b>10,11,12</b>
<p>This course is designed to help you sharpen your focus on your own life. It is to help you gain a clear picture of who you are, how you got that way, and most importantly, to help you make wise choices in your life. Topics include: relationships, housing, personal finance, parenting, communications, healthy lifestyle, food and nutrition, and preparing for life after high school. <b>(Students graduating in the year of 2019 must take this as a requirement for graduation in place of Family Living)</b></p>			

### Technology/Industrial Arts Departments

Course	Course Number	Credits	Grade Level
<b>Introduction to Manufacturing and Design</b>	<b>8110</b>	<b>.5</b>	<b>9,10,11,12</b>
This class will focus on and be an introduction to the field of Manufacturing and Design. Students will learn how to safely and properly use basic tools and machines. This class will also learn basic drafting skills and be introduced to computer aided drafting (CAD). <b>*This course is a mandatory Pre-requisite to any other Manufacturing Elective, DADD Elective, Construction elective and Engineering Elective.</b>			
<b>Advanced Manufacturing I</b>	<b>8120</b>	<b>1</b>	<b>10,11,12</b>
<b>Advanced Manufacturing II</b>	<b>8125</b>	<b>1</b>	<b>11,12</b>
This class is a project driven course that allows students to properly develop, design and manufacture independent projects. All projects will be designed in CADD before any production work is done. Students at this level will also use advanced manufacturing technology including CNC machining, 3D printing and laser engraving. <u>Students must achieve a "C" or higher in Intro to Manufacturing &amp; Design before admission to this class. Any student that receives a failing grade in a marking period or misuses the technology will be removed from the class.</u>			
<b>Applied Physics (Pre-Engineering I and II)</b>	<b>8130</b>	<b>1</b>	<b>10,11,12</b>
This course is designed to develop students' problem-solving, visualization and communications skills. The emphasis is on identifying, formulating, and using physics to solve engineering problems. Students will apply knowledge of mathematics, science, and engineering, design and conduct experiments, analyze and interpret data, as well as function on multi-disciplinary teams. Students will also be introduced into the various engineering fields as well as the requirements needed to excel in those majors. Students will need to come into class with the ability to use CAD software. Pre-requisite: "Introduction to Manufacture and Design."			
<b>Computer Aided Drafting I</b>	<b>8150</b>	<b>1</b>	<b>10,11,12</b>
<b>Computer Aided Drafting II</b>	<b>8155</b>	<b>1</b>	<b>11,12</b>
This course is intended for students that chose to focus on drafting techniques found in today's construction and manufacturing industry. Students will complete multi-view drawings and 3D drawings. Students at this level will also use advanced manufacturing technology including CNC machining, 3D printing and laser engraving. This course is highly recommended for students pursuing higher education at Technical Schools or looking at careers in any engineering field. <u>Students must achieve a "C" or higher in Intro to Manufacturing &amp; Design before admission to this class. Any student that receives a failing grade in a marking period or misuses the technology will be removed from the class.</u>			
<b>Manufacturing Enterprise</b>	<b>8170</b>	<b>1</b>	<b>12</b>
This course will provide students an opportunity to establish and run a company, develop a business plan, advertise for their company and properly design and construct products for the purpose of sale. It is highly recommended students take the Advanced Manufacturing and CADD courses before taking this class. Students will have access to modern manufacturing technologies that include CNC machining, 3D printing and laser engraving. This course will meet both the requirements for Economics AND a .5 Elective Credit for Seniors. Pre-requisite: Introduction to Manufacturing & Design			

### Internship/Externship Program

Course	Course Number	Credits	Grade Level
<b>Externship/Work Experience</b>	<b>9000</b>	<b>Varies</b>	<b>12</b>
A work experience has been organized with the cooperation of local industries and trades to provide the student/learner who has the proper qualifications with the opportunity to further his knowledge and skill in the chosen occupational field during the school year. The student/learner will participate Monday through Friday for one block and also will receive one elective credit each semester towards graduation. Participation is determined by students meeting minimum requirements and by the needs of local employers. Students can also work within the school assisting school personnel with various duties. Grading is based on submission of weekly logs and employer evaluations.			
<b>Internship</b>	<b>9100</b>	<b>Varies</b>	<b>12</b>
This is a school-based program in which students assist teachers as classroom tutors. Students will be placed as teachers' assistants in the Elementary and/or the MS-HS Tutoring and Writing Center. Students are assigned to specific teachers and classes and will provide academic assistance to younger students. Participation is determined by students meeting certain academic standards and with the recommendation of the high school principal, guidance counselor and assigned teachers.			

**CHS - College in High School (Dual Enrollment)**  
**University of Pittsburgh – taught at Lakeview High School**

Course	Course Number	Credits	Grade Level
<b>(CHS) General Chemistry I w/lab (Chem 3) -Weighted Level III</b> This is the first half of a two-term introduction to general chemistry. Topics include atomic theory, molarity, gases and kinetic theory, thermochemistry, electronic structure and the periodic table, relationships between phases, ionic solutions and acid/base theories, redox reactions, carbon chemistry, rates of reactions, chemical equilibria, and thermodynamics. This course requires laboratory sessions and exams on the Pitt campus. Transportation will be provided. Pre-requisite: High school chemistry.	<b>D0110</b>	<b>3 CHS/1.5 HS</b>	<b>11,12</b>
<b>Statistics/(CHS Statistics)-Weighted Level III</b> This course teaches methods and terminologies of descriptive and inferential statistics. Students who complete this course will be able to conduct their own analyses of standard one-sample or two-sample data sets, follow statistical reasoning, and read statistical reports with understanding. Introductory topics in linear regression, analysis of variance and contingency table analysis also will be covered.	<b>D0200</b>	<b>3 CHS/1.1 HS</b>	<b>11,12</b>
<b>Introduction to Matrices and Linear Algebra – Weighted Level III (CHS)</b> The principal topics of the course include vectors, matrices, determinants, linear transformations, Eigen values and Eigen vectors, and selected applications. The prerequisite is successful completion of Calculus I with a grade of C or higher.	<b>D0220</b>	<b>3 CHS/1.1 HS</b>	<b>12</b>
<b>Calculus II/(CHS Calculus I)</b> Calculus II is designed to be an extension of the Calculus I course. It is intended for the very most advanced math students who have completed the Calculus I course with a high degree of success. Topics covered will include an initial review of prerequisite skills and concepts, differentiation and integration of transcendental functions, advanced integration techniques, and various applications thereof.	<b>D0230</b>	<b>3 CHS/1.1 HS</b>	<b>12</b>
<b>American Political Process (CHS)</b> This is an introductory college level course in American politics. The purpose of the course is to teach students both about the American political system and about broad concepts social scientists use to study politics. <b>Prerequisites:</b> 1) 88% average in US History I and US History II courses, 2) Advanced or Proficient score on Keystone Literature test and 3) Approval of instructor.	<b>D0240</b>	<b>3 CHS/1.1 HS</b>	<b>11,12</b>

**Grove City College – taught at GCC Campus (students responsible for transportation)**  
**Additional information and enrollment packets will be available in the Guidance Office.**

Introduction to Biology  
Principles of Marketing  
Introduction to Productivity Software  
Principles of Microeconomics  
Principles of Macroeconomics  
Calculus I  
Introduction to Philosophy  
Introduction to Ethics  
Foundations of Political Science  
Foundations of Psychology  
Foundations of Social Science  
Introductory & Intermediate Chinese  
Introductory & Intermediate French  
Introductory & Intermediate German  
Introductory & Intermediate Greek  
Introductory & Intermediate Hebrew  
Introductory & Intermediate Spanish