# Southmoreland High School

# Program of Studies

## 2020-2021

# Introduction

Before starting the process of selecting courses for your schedule next year, please review the guidelines and procedures outlined on the next few pages. Your understanding and knowledge of this information will prove to be beneficial in selecting your academic program. We recommend that you select courses that are relevant, challenging and encompass your areas of interest and exploration related to your future plans. Students should plan a schedule to meet the demands of their future careers and post-secondary educational opportunities.

**Counseling Services:**
The School Counseling Department's role is to assist all students achieve success in the areas of academics, career and social/ emotional development. A comprehensive program approach allows for students to evaluate their own uniqueness, share their talents and adapt to new experiences. Students are assigned their school counselor by an alphabetical grouping of their last names.


**Mrs. Angela Selembo: A-K**
selemboa@southmoreland.net
(724) 887-2017

**Mrs. Andrea Hanford: L-Z**
hanforda@southmoreland.net
(724) 887-2048

**Mrs. Desiree Pollard:** Counseling Secretary
pollardd@southmoreland.net
(724) 887-2013


School counselors support students' ***academic*** success by:

- Leading development of a safe and caring school culture
- Delivering a school counseling program based on data identifying student needs
- Delivering information to students and teachers within the school counseling curriculum on best practices in mindsets and behaviors (i.e., learning strategies, self-management skills, social skills) and metacognition skills (McGuire, 2015) critical in academic success
- Providing relevance to academic effort and educational pursuits by assisting in students' career planning and future career-related goals
- Working with administration, teachers and other school staff to create a school environment encouraging academic success and striving to one's potential (Stone & Clark, 2001)
- Working to remove barriers to access and provide students with the opportunity for academic challenge in the most rigorous coursework possible
- Establishing data analysis methods to identify and target systemic barriers deterring equitable access
- Working to establish student opportunities for academic remediation as needed
- Emphasizing family-community-school relationships in addressing academic needs (Brown, 1999)
- Providing opportunities for students to:
    - Enhance their self-efficacy beliefs and competence
    - Develop attributional beliefs
    - See value in tasks related to achievement
    - Develop mastery/learning goals
    - Develop autonomy
    - Relate to others (Rowell & Hong, 2013) www.schoolcounselor.org [ 2 ]

School counselors support students' ***career*** development by:

- Providing opportunities to engage students in "life roles including learner and worker" (Gysbers, 2013)

- Providing learning and experiential opportunities for students to acquire behaviors and skills for career readiness (Gysbers, 2013)
- Working with students to identify their interests, abilities, specific career clusters (Stipanovic, 2010) and post-secondary plans (many states mandate an academic/career action plan as a graduation requirement)
- Helping students understand the connection between school and the world of work
- Helping students plan the transition from school to post-secondary education and/or the world of work (ASCA, 2014)
- Advising students on multiple post-secondary pathways (e.g., college, career-specific credentials and certifications, apprenticeships, military, service-year programs, full-time employment with a family-supporting wage) (Chicago Public Schools Multiple Post-secondary Pathways Framework)
- Connecting students to early college programs (e.g., dual credit/dual enrollment).
- Collaborating with administration, teachers, staff and decision makers to create a post-secondary readiness and college going culture
- Providing and advocating for individual pre-K through post-secondary students' college and career awareness through exploration and postsecondary planning and decision making, which supports students' right to choose from the wide array of options after completing secondary education
- Identifying gaps in college and career access and the implications of such data for addressing both intentional and unintentional biases related to college and career counseling
- Working with teachers to integrate career education learning in the curricula
- Providing opportunities for all students to develop the mindsets and behaviors necessary to learn work-related skills, resilience, perseverance, an understanding of lifelong learning as a part of long-term career success, a positive attitude toward learning and a strong work ethic
- Recognizing and supporting essential developmental factors key to future successes, such as self-efficacy and identity, motivation and perseverance (Savitz-Romer & Bouffard, 2013)

School counselors students' support ***social/emotional*** development as they:

- Collaborate with classroom teachers to provide the school counseling curriculum to all students through direct instruction, team-teaching or providing lesson plans for learning activities or units in classrooms aimed at social/ emotional development (ASCA, 2019)
- Understand the nature and range of human characteristics specific to child and adolescent development
- Identify and employ appropriate appraisal methods for individual and group interventions that support 9-12 students' social/emotional development
- Know and utilize counseling theories to inform both direct and indirect services providing support to 9-12 students' social/emotional development www.schoolcounselor.org [ 70 ]
- Use assessment in the context of appropriate statistics and research methodology, follow-up assessment and measurement methods to implement appropriate program planning for social/emotional development
- Select and implement technology in a school counseling program to facilitate 9-12 students' social/emotional development
- Serve as a referral source for students when social/emotional issues become too great to be dealt with solely by the school counselor, including crisis interventions

School counselors focus their efforts on designing and implementing school counseling programs that promote academic, career and social/emotional success for all students. While implementing a school counseling program, school counselors:

- Deliver school counseling curriculum that proactively enhances awareness of mental health; promotes positive, healthy behaviors; and seeks to remove the stigma associated with mental health issues
- Provide responsive services including internal and external referral procedures, short-term counseling or crisis intervention focused on mental health or situational (e.g. grief, difficult transitions) concerns with the intent of helping the student return to the classroom and removing barriers to learning
- Recognize warning signs: changes in school performance ( grades, attendance), mood changes, complaining of illness before school, increased disciplinary problems at school, experiencing problems at home or family situation

(stress, trauma, divorce, substance abuse, exposure to poverty conditions domestic violence), communication from teachers about problems at school and dealing with existing mental health concerns

- Provide school-based prevention and universal interventions and targeted interventions for students with mental health and behavioral health concerns
- Provide students with individual planning addressing their academic, career and social/emotional (including mental health) needs
- Educate teachers, administrators, parents/guardians and community stakeholders about the mental health concerns of students, including recognition of the role environmental factors have in causing or exacerbating mental health issues and provide resources and information
- Advocate, collaborate and coordinate with school and community stakeholders to ensure that students and their families have access to mental health services www.schoolcounselor.org [72]
- Recognize and address barriers to access mental health services and the associated stigma, including cultural and linguistic impediments
- Adhere to appropriate guidelines regarding confidentiality, the distinction between public and private information and consultation
- Direct students and parents to school and/or community resources for additional assistance through referrals that treat mental health issues (suicidal ideation, violence, abuse and depression)
- Help identify and address students' mental health issues while working within the ASCA's Ethical Standards; Competencies for School Counselors; and national, state and local legislation (Family Educational Rights and Privacy Act and Health Insurance Portability and Accountability Act), which guide school counselors' informed decision-making and standardize professional practice to protect both the student and school counselor
- Seek to continually update their professional knowledge regarding the students social/emotional needs

## Compliance Policy Statement

Title VI, Title IX, Section 504, A.D.A.

In compliance with the following statutes and regulations implementing Title VI of the Civil Rights Act of 1964 (Title VI), Title IX of the Educational Amendments of 1972 (Title IX), Section 504 of the Rehabilitation Act of 1973 (Section 504), Americans with Disabilities Act of 1990 (ADA) and the Age Discrimination Act of 1975 (ACT), the Southmoreland School District does not discriminate on the basis of race, color, national origin, religion, sex, disability, or age in its admissions, educational programs, activities, or employment practices.

The district commits itself to take whatever remedial action is necessary to rectify proven instances of discrimination where Title VI, Title IX, Section 504, ADA, and ACT are applicable. Inquiries concerning Title IX and Section 504 may be referred to Mr. Daniel Clara, Title IX and Section 504 Coordinator for the Southmoreland School District, whose office is located at the Southmoreland Primary Center, PO Box C/1431 Water Street, Alverton, PA 15612.

Our school counselors encourage the students to make realistic choices and course selections without regard to sex or disability.

## Graduation Credit Requirements

A requirement for graduation shall be the completion of required assessments and studies representing the instructional program assigned to grades nine (9) through twelve (12), which are aligned to establish academic standards. A minimum of twenty-five (25) credits is required for graduation and shall consist of the following credits earned in grades 9, 10, 11 and 12:

| Course | Credits 2021 | Credits 2022 | Credits 2023 | Credits 2024 |
|---|---|---|---|---|
| English | 4.00 | 4.00 | 4.00 | 4.00 |
| Social Studies | 4.00 | 4.00 | 4.00 | 4.00 |
| Science | 4.00 | 4.00 | 4.00 | 4.00 |
| Math | 4.00 | 4.00 | 4.00 | 4.00 |
| Physical Education **(10, 11, 12)** | 1.50 | 1.50 | 1.50 | 1.50 |
| Health/PE **(9)** | 0.50 | 0.50 | 0.50 | 0.50 |
| Additional Electives | 7.00 | 7.00 | 7.00 | 7.00 |
| State Assessment | Proficient *or* Advanced on the Keystone Exams in Literature, Algebra I, and Biology **OR** Demonstration of proficiency through alternate pathway | | | |
| Career Readiness | Successful completion of the Career and Education Work Standards Portfolio **AND** Successful completion of Industry-Based Learning Experience | | | |
| **Total** | **25.00** | **25.00** | **25.00** | **25.00** |

- Students are strongly encouraged to investigate college course requirements.
- Many colleges recommend 2-3 consecutive years of study in a World Language.

## Credit Load and Achievement

***The recommended MINIMUM credit load per year is 6 credits, plus physical education.*** Students are required to take a minimum of 5 credits in their senior year, plus physical education

| ***A student must complete the following minimum credits to advance to the next grade level:*** | |
|---|---|
| Promotion from 9th to 10th | At *least* 5 credits |
| Promotion from 10th to 11th | At *least* 11 credits |
| Promotion from 11th to 12th | At *least* 17 credits |

Make-up credits earned in Summer School will be added to your credit totals for grade level advancement.

In order to receive a diploma from Southmoreland School District, a student must have earned a minimum of 25 credits and successfully completed all graduation requirements. A student may participate in the commencement ceremony if **one credit or less** is needed to fulfill graduation requirements. Students should make arrangements with their school counselor to make up courses. A diploma will be issued after successful completion of required credit(s).

## Credit Recovery/Repeating a Course

- Beginning with the Class of 2024, the maximum number of credits earned through a credit recovery program will be limited to two (2) throughout a students' high school career.

- Failed required courses must be made up in an approved accredited program, which may be offered at area school districts or via an online format. All associated fees are the student and/or family's responsibility.

- Students who fail more than one course must see a counselor for rescheduling and should take at least one of the failed courses during the summer. Courses must be completed and a passing grade of 70% or higher received prior to the start of the new school year. If a passing grade is not received, the course will be scheduled for that upcoming school year.
    - Special consideration: If a summer course passing grade is received within 2 calendar weeks of the first day of school, *only then* will the course be removed from a student's schedule. All other scenarios must be discussed with your school counselor immediately upon being made aware.

- Students repeating a course at Southmoreland High School will have both grades recorded on the permanent record. The original grade and the summer school grade will be averaged together and posted as the summer school grade on the student's transcript. Students **MUST earn a "C" or better** (70% or better) in an approved summer school course to receive credit.

- A student will NOT earn another credit for a repeated course. A student may only repeat a course if he/she received a mark of **E, or failing percentage,** for that course.

- Credit recovery courses may impact NCAA eligibility. Students interested in collegiate athletics should work with their high school counselor, coaches and Athletic Director prior to finalizing an option for credit recovery.

## Career Readiness Portfolio

As a measure of Future Ready PA reporting, Pennsylvania schools are held accountable for ensuring each student meets the Pennsylvania Career Education and Work (CEW) Academic Standards. The CEW standards focus on the following topics: **Career Awareness and Preparation (13.1), Career Acquisition (13.2), Career Retention (13.3) and Advancement and Entrepreneurship (13.4).** Throughout a student's high school career at Southmoreland High School, he/she will partake in a variety of activities/experiences designed to meet the CEW standards. The culmination of all career readiness will result in a comprehensive Career Readiness Portfolio for each student.

By the end of 11th grade:

- Students must have a minimum of eight (8) career artifacts (at least two (2) per grade level)
- Address each career strand at least once
- Individualized academic and career plan

| Grade Level | Activity Description |
|---|---|
| 9 | CWCTC Visit |
| 9 | Career Cluster Survey |
| 9 | Raise.Me Account Creation |
| 10 | College Board Account Creation |
| 10 | ASVAB |
| 11 | PSAT Score Review |
| 9-12 | Career Cafe |
| 9-12 | College/Career Readiness Survey |
| 9-12 | College & Career Fair |
| 9-12 | Individualized Academic & Career Plan |

***These examples are provided as a guide and are subject to change. Students who do not participate in the activities and/or complete the associated artifact will be required to complete alternate activities/assignments to meet the corresponding CEW standards.**

## Industry-Based Learning Indicator

**Students must successfully complete one (1) of the following Industry-Based Learning Indicators:**

- Industry Standards-Based Competency Assessments (NOCTI/NIMS): Scoring *competent* or *advanced* by the end of the 12th grade
- Industry Recognized Credential: Earn at least one industry recognized credential between grades 7 & 12
- Work-based Learning Experience: Complete a work-based learning experience between grades 7 & 12 as listed below.
    - Job Shadowing
    - Internships/Practicums (Paid or unpaid)
    - Cooperative Education Programs (CTE Program)
    - Career Mentoring Experience
    - Apprenticeship
    - Community-Based Work Programs
    - Service Learning (Unpaid)

## NCAA Requirements

Students who plan on participating in Division I, II or III college athletics are responsible for planning their academic studies in accordance with NCAA standards. Students considering participation in Division I or Division II intercollegiate sports programs after high school must register with the NCAA eligibility center ***by May of their junior year***. College coaches cannot recruit seniors until students have registered with the NCAA. However, as college coaches may begin the recruitment process as early as the sophomore year, it is recommended that students register as early as the end of their freshman year. A student must meet eligibility requirements by taking approved high school courses and completion of a college entrance exam, an ACT or SAT. Approved high school courses are indicated in this Program of Studies book with a black diamond (♦), and are listed on page 8. Additional information is available in the Counseling Office or online at www.eligibilitycenter.org.

The NCAA Clearinghouse requires that prospective students send an official copy of their transcript and SAT and/or ACT scores. After registering online, student-athletes must notify their school counselor who will upload their transcript. Official test scores must be sent directly from the testing agency.

# NCAA Approved Core Course at Southmoreland High School

| | |
|---|---|
| **Language Arts** | 102 - English I |
| **Language Arts** | 112 - English II |
| **Language Arts** | 113 - Advanced English II *(Pre-AP)* |
| **Language Arts** | 122 - English III |
| **Language Arts** | 128 - AP English III |
| **Language Arts** | 132 - English IV |
| **Language Arts** | 138 - AP English IV |
| **Mathematics** | 301- Algebra I |
| **Mathematics** | 318 - Modern Geometry |
| **Mathematics** | 319 - Advanced Modern Geometry |
| **Mathematics** | 322 - Algebra II |
| **Mathematics** | 323- Advanced Algebra II |
| **Mathematics** | 324 - Advanced Algebra III |
| **Mathematics** | 325 - Finite/ Statistics/ Trigonometry |
| **Mathematics** | 331 - Algebra III |
| **Mathematics** | 332 - Pre-Calc |
| **Mathematics** | 342 - AP Calculus |
| **Mathematics** | 343 - AP Statistics |
| **World Languages** | 510 - Spanish I |
| **World Languages** | 514 - Spanish II |
| **World Languages** | 515 - Spanish III |
| **World Languages** | 560 - Spanish IV |
| **World Languages** | 520 - French I |
| **World Languages** | 524 - French II |
| **World Languages** | 525 - French III |

| | |
|---|---|
| **Science** | 400 - Integrated Science |
| **Science** | 412 - Biology |
| **Science** | 413 - Advanced Biology *(Pre-AP)* |
| **Science** | 420 - Chemistry |
| **Science** | 421 - Advanced Chemistry *(Pre-AP)* |
| **Science** | 436 - Anatomy and Physiology |
| **Science** | 437 - Exploring the Physical Sciences |
| **Science** | 439 - Physics |
| **Science** | 441 AP Physics I |
| **Science** | 442 - AP Biology |
| **Science** | 443 - AP Chemistry |
| **Science** | 446 - Environmental Science |
| **Science** | 447 - AP Physics 2 |
| **Social Studies** | 200 - Accelerated *(Pre-AP)* World History and Geography |
| **Social Studies** | 205 - US History/ Civil War - 1939 |
| **Social Studies** | 215 - US History/ WWII - Present |
| **Social Studies** | 217 - World History |
| **Social Studies** | 232 - American Issues |
| **Social Studies** | 235 - Introduction to Psychology |
| **Social Studies** | 236 - Law and Justice |
| **Social Studies** | 239 - AP United States History |
| **Social Studies** | 240 - AP European History |
| **Social Studies** | 241 - World History |
| **Social Studies** | 242 - AP United States Government and Politics |

# NCAA Initial Eligibility

## Core Courses

NCAA Divisions I and II require 16 core courses. *See the charts on page 11 and 12.*

**NCAA Division I requires 10 core courses** to be completed **prior to the seventh semester** (seven of the 10 must be a combination of English, math or natural/physical science that meet the distribution requirements below). These 10 courses become "locked in" at the start of the seventh semester and cannot be retaken for grade improvement.

It is possible for a Division I college-bound student-athlete to still receive athletic aid and the ability to practice with the team if he or she fails to meet the 10-course requirement, but would not be able to compete.

## Test Scores

**Division I and Division II** use sliding scales to match test scores and core grade-point averages (GPA). The sliding scale can be found on page 11 and 12 or at www.eligibilitycenter.org. An ACT score is calculated by adding English, math, reading and science subscores.

When you register for the SAT or ACT, use the NCAA Eligibility Center code of 9999 to ensure all SAT and ACT scores are reported directly to the NCAA Eligibility Center from the testing agency. Test scores that appear on transcripts will not be used.

## Grade-Point Average

Review Southmoreland's List of NCAA Courses on the NCAA Eligibility Center's website (www.eligibilitycenter.org). Only courses that appear on your school's List of NCAA Courses will be used in the calculation of the core GPA. Use the list as a guide.

**Division I** GPA required to be eligible for competition is 2.300 (corresponding test-score requirements are listed on Sliding Scale B on page 11).

**The Division II** core GPA requirement is a minimum of 2.000. (corresponding test-score requirements are listed on Sliding Scale B on page 12).

*Remember, the NCAA GPA is calculated using NCAA core courses only.*

| Division I<br>16 Core Courses | | Division II<br>16 Core Courses | |
|---|---|---|---|
| 4 years | English | 3 years | English |
| 3 years | Mathematics (Algebra 1 or higher) | 2 years | Mathematics (Algebra 1 or higher) |
| 2 years | Natural/Physical Science (1 year of lab, *if offered*) | 2 years | Natural/Physical Science (1 year lab, *if offered*) |
| 1 year | Additional English, mathematics or natural/physical science class | 3 years | Additional English, mathematics or natural/physical sciences |
| 2 years | Social Studies | 2 years | Social Science |
| 4 years | Additional courses (from any area listed above, foreign language or comparative religion/philosophy) | 4 years | Additional courses (from any of area listed above, foreign language or comparative religion/philosophy) |

| NCAA Division I Sliding Scale A | | | | | |
|---|---|---|---|---|---|
| Core GPA | SAT | ACT | Core GPA | SAT | ACT |
| 3.550 | 400 | 37 | 2.850 | 770 | 56 |
| 3.525 | 410 | 38 | 2.825 | 780 | 56 |
| 3.500 | 430 | 39 | 2.800 | 790 | 57 |
| 3.475 | 440 | 40 | 2.775 | 800 | 58 |
| 3.450 | 460 | 41 | 2.750 | 810 | 59 |
| 3.425 | 470 | 41 | 2.725 | 820 | 60 |
| 3.400 | 490 | 42 | 2.700 | 830 | 61 |
| 3.375 | 500 | 42 | 2.675 | 840 | 61 |
| 3.350 | 520 | 43 | 2.650 | 850 | 62 |
| 3.325 | 530 | 44 | 2.625 | 860 | 63 |
| 3.300 | 550 | 44 | 2.600 | 860 | 64 |
| 3.275 | 560 | 45 | 2.575 | 870 | 65 |
| 3.250 | 580 | 46 | 2.550 | 880 | 66 |
| 3.225 | 590 | 46 | 2.525 | 890 | 67 |
| 3.200 | 600 | 47 | 2.500 | 900 | 68 |
| 3.175 | 620 | 47 | 2.475 | 910 | 69 |
| 3.150 | 630 | 48 | 2.450 | 920 | 70 |
| 3.125 | 650 | 49 | 2.425 | 930 | 70 |
| 3.100 | 660 | 49 | 2.400 | 940 | 71 |
| 3.075 | 680 | 50 | 2.375 | 950 | 72 |
| 3.050 | 690 | 50 | 2.350 | 960 | 73 |
| 3.025 | 710 | 51 | 2.325 | 970 | 74 |
| 3.00 | 720 | 52 | 2.300 | 980 | 75 |
| 2.975 | 730 | 52 | | | |
| 2.950 | 740 | 53 | | | |
| 2.925 | 750 | 53 | | | |
| 2.900 | 750 | 54 | | | |
| 2.875 | 760 | 55 | | | |

| NCAA Division II Sliding Scale B | | | | | |
|---|---|---|---|---|---|
| Core GPA | SAT | ACT | Core GPA | SAT | ACT |
| 3.300 & above | 400 | 37 | 2.725 | 730 | 52 |
| 3.250 | 430 | 38 | 2.700 | 740 | 53 |
| 3.225 | 440 | 40 | 2.675 | 750 | 53 |
| 3.200 | 460 | 41 | 2.650 | 750 | 54 |
| 3.175 | 470 | 41 | 2.625 | 760 | 55 |
| 3.150 | 490 | 42 | 2.600 | 770 | 56 |
| 3.125 | 500 | 42 | 2.575 | 780 | 56 |
| 3.100 | 520 | 43 | 2.550 | 790 | 57 |
| 3.075 | 530 | 44 | 2.525 | 800 | 58 |
| 3.050 | 500 | 44 | 2.500 | 810 | 59 |
| 3.025 | 560 | 45 | 2.475 | 820 | 60 |
| 3.000 | 580 | 46 | 2.450 | 830 | 61 |
| 2.975 | 590 | 46 | 2.425 | 840 | 61 |
| 2.950 | 600 | 47 | 2.400 | 850 | 62 |
| 2.925 | 620 | 47 | 2.375 | 860 | 63 |
| 3.900 | 630 | 48 | 2.350 | 860 | 64 |
| 2.875 | 650 | 49 | 2.325 | 870 | 65 |
| 2.850 | 660 | 49 | 2.300 | 880 | 66 |
| 2.825 | 680 | 50 | 2.275 | 890 | 67 |
| 2.800 | 690 | 50 | 2.250 | 900 | 68 |
| 2.775 | 710 | 51 | 2.225 | 910 | 69 |
| 2.750 | 720 | 52 | 2.200 | 920 | 70 & above |

*For more information regarding NCAA eligibility, visit www.eligibilitycenter.com.*

## Course Selection Procedure

After students and their parents have carefully read through this Program of Studies, it is time to think about the course selection process. Students, with assistance from parents, school counselors and teachers, will develop an individual program to serve their future plans. In so doing, it is necessary that students note the following:

1. The ultimate responsibility for meeting high school graduation requirements and college entrance requirements lies with the student.

2. Students should make sure that they are aware of course prerequisites, course sequences, the level of difficulty of the course and graduation requirements as they make their course selections. Decisions should realistically assess student capabilities and ambitions.

3. Students requesting courses for which they have not been recommended will be required to submit a Parental Override Form. Once placement into the requested course has occurred, students will be required to remain in that course for the entire school year.

4. Students are not permitted to schedule a class for less than the required number of periods or clock hours for which the subject meets.

5. The ability for a student to add a course after the beginning of the school year depends on the class size, the impact on the rest of the student's schedule, the amount of time that has elapsed since the onset of the course and if the student meets the prerequisites for the course. Students are never guaranteed that they will be able to make changes to their schedules once the school year has begun.

## Course Group

Courses at Southmoreland High School are grouped to allow students to make appropriate selections based on individual needs and goals. The grouping categories are Academic (A), College Preparatory (CP) and Advanced Placement (AP).

**Academic (A):**
Required courses designated as academic (A) are appropriate for all students planning to enter military, trade school, two year college or work directly upon graduation.

**College Preparatory (CP**):
Required courses designated as college prep (CP) are appropriate for students planning to continue their education at a college or university.

**Advanced Placement (AP):**
Required courses designated as advanced placement (AP) are appropriate for college bound students desiring a more challenging curriculum and higher enrichment.

## College In High School (CHS) Courses (Dual Enrollment)

Students have the opportunity to enroll in College In High School (CHS) Courses through a partnership that the Southmoreland School District has established with Mount Aloysius College. This program allows students to earn college credits upon successful completion of specific, upper-level courses offered at Southmoreland High School. Students enrolled in certain AP Classes, will have the opportunity to purchase credits in the fall by completing the necessary paperwork and submitting payment to the college. Once courses are completed and grades finalized, the student can request an official transcript from Mount Aloysius. The course will be listed on the high school transcript, but the college-level credit will not. Southmoreland High School is unable to provide a college transcript.

This program allows students to earn college credits through their Southmoreland classes. These courses are taught by Southmoreland High School faculty who have passed the rigorous review process conducted by the college. Students may also elect to take these courses without earning the college credit.

Credits earned through a College In High School (CHS) Course have transferred to many colleges and universities. The student is responsible for checking their prospective colleges or universities to determine if the institution will accept the dual enrollment credits. The best way to determine this is to call the college or university you are interested in attending. At no time will your school counselor or teacher be able to assure or guarantee you of a course credit transfer.

CHS Courses offered through Mount Aloysius College and taught at Southmoreland High School include:

- 128 - English III AP (ENGL111 - Rhetoric II, Introduction to Literature)
- 138 - English IV AP (EN102 - Introduction to Literature - 3 credits)
- 239 - AP American History (HS201 - American History to 1877)
- 240 - AP European History (HS102 - World Civilization Since 1500 - 3 credits)
- 242 - AP US Government (PS203 - American National Government - 3 credits)
- 342 - AP Calculus (CM117 - Calculus - 4 credits)
- 343 - AP Statistics (CM220 - Calculus - 3 credits)
- 441 - AP Physics 1 (SC105 - Physics 1 - 4 credits)
- 443 - AP Chemistry - (CHEM101 - Chemistry 1 - 4 credits)

## Advanced Placement Courses

Advanced Placement (AP) courses are presented in cooperation with the Advanced Placement Program of the College Board across many subject areas. All students enrolled in AP courses are required to take the end of year AP exam during the College Board mandated testing window in May.

AP exams are scored on a 1-5 scale. Many colleges and universities award recognition for scores of a 3,4 or 5. For some colleges, the recognition permits students to skip certain entry-level courses and enroll in more advanced level courses as a freshman. For others, college credits are awarded. Students may check for details on how AP test scores are managed for each college/ university by contacting their college or university of choice.

Please keep in mind that it is the responsibility of the student to send AP scores to each school directly from the College Board. AP scores are made available to families in July each year through the College Board.

The following AP courses are offered at Southmoreland High School:

- 128 - AP English III (11th grade)
- 138 - AP English IV (12th grade)
- 239 - AP American History
- 240 - AP European History
- 241 - AP World History
- 242 - AP US Government
- 342 - AP Calculus
- 343 - AP Statistics
- 441 - AP Physics 1
- 442 - AP Biology
- 443 - AP Chemistry
- 447 - AP Physics 2
- 880 - AP Music Theory

## Schedule Change Procedures

Course request changes will be accepted, via a Google form, to the Counseling Office until August 1. A Google form will be shared to all students in May via Google Classrooms and posted on the SHS Counseling webpage.

- Schedule changes can be made the first two weeks of school. **Changes will occur if the student is missing a required course for graduation, wants to take another course in lieu of a study hall or if a teacher makes a recommendation**. *Students are responsible for making up any missed work as a result of late enrollment in the course.*

- Students must exercise caution before dropping courses to ensure that graduation, future goals and NCAA requirements *(when eligible)* are being met.

- Course change requests for second semester electives will be considered the first 10 days of the second semester. Changes will be made only if they do not overload any other courses. If the original elective course is dropped within this timeframe, it will NOT appear on the student's transcript. *Students are responsible for making up any missed work as a result of late enrollment in the course.*

- Students must get parent, teacher, school counselor and administrator permission to drop a course. Students who withdraw from any class after **the tenth school day of any semester**, as a result of administrative review, will receive an **E, or the failing % posted**, for that course for each subsequent nine weeks and for any exams. This course grade will be included in GPA calculations.

- No academic level change will be considered without teacher input. If both the teacher and parent agree to the change, it will be considered. When a teacher determines it is in the student's best interest to remain in the course, a parent conference/ telephone call will be held before further consideration is given to the request.

- Schedule change requests will not be granted based on lunch preference, teacher preference or time preference. **NOTE:** *Requests to change lunch period will only be considered for medical reasons and may require a note from a physician.*

- Schedule change requests are not guaranteed.

- Any of the above procedures are subject to administrative review.

## Credit Denial/Minimum Attendance Requirement

Students 18 years of age and older must attend 80% of scheduled classes. Failure to do so may result in credit denial. All absences, except those medically excused or the result of out-of-school suspensions, count against students towards credit denial.

## Work Release

Work release is a non-credit opportunity for seniors who are meeting their graduation requirements. Students desiring work release must work four out of five school days and begin work prior to 2:30 p.m. Work release students must maintain a minimum of five credits. Work release can be revoked at any time due to academic or discipline issues or poor attendance. Work release applications are available in the Counseling Office after the second week of school.

## College/Post-Secondary School Release

Seniors who are meeting their graduation requirements, and maintain a minimum of five credits, may be released to attend classes at approved post-secondary schools. Approval must be obtained by a parent/guardian, administrator and school counselor.

## College Entrance Exams

College Board Exams, such as the SAT or ACT, are required for admission to most colleges and universities. The Counseling Office will assist students with registering for college entrance exams on an individual basis as well as part of classroom instruction by the school counselors. Students will create a College Board account as part of large group instruction, typically in the fall of either their sophomore or junior year.

Fee waivers are available for both the ACT and SAT. To be eligible, a student must meet at least one of the criteria below:

- You're enrolled in or eligible to participate in the federal National School Lunch Program (NSLP).
- Your annual family income falls within the Income Eligibility Guidelines set by the USDA Food and Nutrition Service.
- You're enrolled in a federal, state or local program that aids students from low-income families (e.g. Federal TRIO programs such as Upward Bound).
- Your family receives public assistance.
- You live in federally-subsidized public housing, a foster home, or are homeless.

Please see your counselor to determine your eligibility.

### 1. PSAT/National Merit Scholarship Qualifying Test (PSAT/NMSQT)

The PSAT will be taken by all Juniors at Southmoreland High School. The Educational Testing Service, on behalf of the College Entrance Examination Board and the National Merit Scholarship Corporation (NMSC), offers the Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test (PSAT/NMSQT) each October. This two-hour test is similar to the Scholastic Aptitude Test (SAT) and measures critical reading, writing and math problem-solving skills. It is recommended for use in guiding juniors who plan to continue their education. Taking the PSAT/NMSQT is the first step to entering the scholarship programs administered by NMSC and can provide advance indication of college capability that can be used to make a wise, realistic choice of college. Publications that furnish additional information about the PSAT/NMSQT and the scholarships administered by the National Merit Scholarship Corporation are available at **http://www.collegeboard.com/student/testing/psat/about.html**.

**Southmoreland High School's College**
**Entrance Examination Board Number: 390060**

### 2. SAT - (Writing, Critical Reading and Mathematics Sections)

The Scholastic Aptitude Test is given on scheduled Saturday mornings and requires three hours and 45 minutes. To register, for more information, practice questions, scoring guides, fee waivers, free downloads, etc. visit http://www.collegeboard.org.

## 2020-2021 SAT Testing Dates

| TEST DATE | REGISTRATION DEADLINE | LATE REGISTRATION |
|---|---|---|
| August 29, 2020 | July 31, 2020 | August 14, 2020 |
| October 3, 2020 | September 4, 2020 | September 18, 2020 |
| November 7, 2020 | October 9, 2020 | October 23, 2020 |
| December 5, 2020 | November 6, 2020 | November 20, 2020 |
| March 13, 2021 | February 12, 2021 | February 26, 2021 |
| May 8, 2021 | April 9, 2021 | April 23, 2021 |
| June 5, 2021 | May 7, 2021 | May 21, 2021 |

### 3. SAT – Subject Tests

The Achievement Tests are objective one-hour tests in specific subject fields. Candidates may be required to take one, two or three tests in specific subject areas: English, mathematics, history and social studies, modern language and sciences. It is the student's responsibility to be familiar with the admission requirements of the school to which they plan to apply and schedule their testing program accordingly. Most competitive colleges require the SAT subject test.

### 4. ACT - American College Testing Program

Some colleges require the ACT as part of their admissions or placement procedures. The ACT is made up of four tests, each averaging about forty-five minutes. Test items are designed to measure ability to perform the kinds of intellectual tasks that college students typically perform. The tests are concerned with intellectual skills and abilities, not with specific and detailed content. The English examination is primarily a test of appropriate and effective written expression. Most items are concerned with elements of diction, style, phraseology, form and organization; other items are related to the mechanics of writing.

The mathematics test is concerned with mathematical reasoning, mathematical skills and concepts. The tests in social studies and natural sciences are designed to measure the ability to reason and solve problems. They also include items that test knowledge of information sources and capacity for special study. A total score of these four tests provides an estimate of ability to succeed academically in college.

The writing exam is optional. It is recommended that students take this test since many colleges require it. The ACT is given periodically throughout the school year. Most colleges and scholarship agencies participating in the ACT program recommend that prospective applicants take the test late in the junior year or as early as possible in their senior year. Register online at **www.actstudent.org**.

## ACT Testing Dates, 2020-2021

| TEST DATE | REGISTRATION DEADLINE | LATE REGISTRATION |
|---|---|---|
| September 12, 2020 | August 7, 2020 | August 21, 2020 |
| October 24, 2020 | September 20, 2020 | October 4, 2020 |
| December 12, 2020 | November 6, 2020 | November 20, 2020 |
| February 6, 2021 | January 8, 2021 | January 15, 2021 |
| April 10, 2021 | March 5, 2021 | March 19, 2021 |
| June 12, 2021 | May 7, 2021 | May 21, 2021 |
| July 17, 2021 | June 11, 2021 | June 25, 2021 |

## ASVAB (ARMED SERVICES VOCATIONAL APTITUDE BATTERY)

The ASVAB is a timed, multi-aptitude test, which is given to measure a student's aptitude in four critical areas - arithmetic reasoning, word knowledge, paragraph comprehension and mathematics knowledge. **All sophomores** will participate in the ASVAB testing in **Fall 2020**, during school hours. **Any junior or senior** who is interested in taking the test will be able to sign up in the Counseling Office. **There is no charge for the test.**

Juniors and seniors can use scores from the ASVAB to enlist in the military after graduation. However, students are under no obligation to join the military as a result of taking the ASVAB nor will students be contacted by military personnel as a result of the test. The ASVAB Career Exploration Program is designed to assist with career exploration, no matter what future educational and career plans students may be considering.

## Scholarship & Financial Information

Students seeking scholarship and/or financial aid information should contact their counselor and refer to the Counseling Department's Google Classroom or the SHS website's Counseling Page. Other resources available to search for scholarship monies include listings in college handbooks and websites are located in the Counseling Office.

Students interested in financial aid should research the colleges or universities of their choice to find out what is available and how to apply. It is the student's responsibility to meet the deadlines regarding financial aid.

Financial Aid Night is held once a year at either Southmoreland High School or Mount Pleasant Junior-Senior High School in alternating years. The information provided by a PHEAA representative will help students and parents understand the types of financial aid that may be available to them, as well as explain the process involved with applying for financial aid. The event's date and time will be announced in the beginning of the school year via the Google Classrooms, classroom announcements, morning announcements, SHS web page, and SHS Counseling web page.

Students and families are encouraged to do their own scholarship searches as the counseling office receives a fraction of all scholarships available. When scholarships are received in the counseling office, they are made available in the following locations:

- Class of (YEAR) Google Classroom
- SHS Counseling website
- Posted outside the Counseling Suite
- Posted in the cafeteria

Additional online resources include, but are not limited to:

- www.capex.com
- www.educationplanner.org
- www.fastweb.com
- www.salliemae.com
- www.scholarsnapp.org

## Keystone Testing

The Keystone Tests are end-of-course assessments designed to evaluate proficiency in the content areas of Algebra I, Literature and Biology. These tests are a requirement for graduation for all students in the classes of 2021, 2022 and 2023. In order to satisfy the Every Student Succeeds Act (ESSA, 2015), all students that have not already completed a Keystone Exam must participate in the Algebra I, Literature and Biology Keystone Exams before the completion of the second semester of the 11th grade year. Additionally, students in any grade who are enrolled in a Keystone-related course will participate.

Exam scores will be sent to the school district and a copy of the score report will be sent home to parents/guardians. Students that fail to reach the level of Proficiency on any Keystone exam are required to re-test in that specific subject.

Because of the importance of these tests, parents are asked not to schedule vacations or medical appointments during their administration and to encourage their children to eat and sleep well. Parents have the right to examine the tests in the school prior to the testing dates. They also have the right to excuse their children from taking the tests for religious reasons. Parents may contact the Counseling Office with any questions pertaining to the tests.

For students graduating in 2022 and beyond, the following options exist to meet the statewide graduation requirement:

***Keystone Proficiency Pathway:***

- A student earns a minimum score of proficient or advanced on each of the three (3) Keystone Exams - Algebra I, Literature, and Biology.

***Keystone Composite Pathway:***

- A student earns a satisfactory composite score of 4452 on the Algebra I, Literature, and Biology Keystone Exams by achieving at least a proficient score on at least one of the three exams and no less than a basic score on the remaining two).
- The Pennsylvania Department of Education will designate the satisfactory composite score.

***Alternate Assessment Pathway:***

Successful completion of locally established grade-based requirements for academic content areas associated with each Keystone Exam on which the student did not achieve proficiency ***and*** one of the following:

- Attainment of an established score on an approved alternate assessment (SAT, PSAT, ACT, ASVAB);
- Gold Level on the ACT WorkKeys Assessment;
- Attainment of an established score on an Advanced Placement Program or an International Baccalaureate Diploma Program exam in an academic content area associated with each Keystone Exam on which the student did not achieve at least a proficient score;
- Successful completion of a concurrent enrollment course in an academic content area associated with each Keystone Exam in which the student did not achieve at least a proficient score;
- Successful completion of a pre-apprenticeship program; or
- Acceptance in an accredited 4-year nonprofit institution of higher education and evidence of the ability to enroll in college-level coursework.

***Evidence Based Pathway:***

Successful completion of locally established grade-based requirements for academic content areas associated with each Keystone Exam on which the student did not achieve proficiency ***and*** demonstration of three pieces of evidence consistent with the student's goals and career plans, including

- One of the following:
  - Attainment of an established score on the ACT WorkKeys assessment, a SAT subject test, an Advanced Placement Program Exam, or an International Baccalaureate Diploma Program Exam;
  - Acceptance to an accredited nonprofit institution of higher education other than a 4-year institution and evidence of the ability to enroll in college-level coursework;
  - Attainment of an industry-recognized credential; or
  - Successful completion of a concurrent enrollment or postsecondary course;
- Two additional pieces of evidence, including one or more of the options listed above, or:
  - satisfactory completion of a service learning project;
  - attainment of a score of proficient or advanced on a Keystone Exam;
  - a letter guaranteeing full-time employment;
  - a certificate of successful completion of an internship or cooperative education program; or
  - A satisfactory compliance with the NCAA's core courses for college-bound student athletes with a minimum grade point average (GPA) of 2.0.

***CTE Pathway:*** For Career and Technical Education (CTE) Concentrators, successful completion of locally established grade-based requirements for academic content areas associated with each Keystone Exam on which the student did not achieve proficiency and attainment of an industry-based competency certification related to the CTE Concentrator's program of study or demonstration of a high likelihood of success on an January 2019 3 approved industry-based competency assessment or readiness for continued meaningful engagement in the CTE Concentrator's program of study.

## Grade Point Average (GPA)

Because the GPA is based on final grades, the most accurate reporting of this value will occur on the final report card of the year. Courses included in the Program of Studies that carry credit toward graduation are assigned a grade point value based on the following weights in the chart listed below:

| GRADE POINTS | | |
|---|---|---|
| **GRADE** | **ADVANCED PLACEMENT** | **ALL OTHER COURSES** |
| A | 5 | 4 |
| B | 4 | 3 |
| C | 3 | 2 |
| D | 2 | 1 |
| E | 1 | 0 |

## Class Rank

Class rank is determined by a cumulative total of quality points. Grades are assigned weighted quality point values according to the course group designation. Quality points are calculated by multiplying the course group grade points, as listed in the chart below, by the amount of course credit which can be located in the course description.

**To calculate a student's class rank:**

| | | | | |
|---|---|---|---|---|
| Course Group Grade Point (CG) | x | Credit Value (CV) | = | Quality Points (QP) |

| Course Group Grade Points | | | |
|---|---|---|---|
| **Grade** | **Academic Courses** | **College Prep Courses** | **Advanced Placement Courses** |
| A | 10 | 12 | 14 |
| B | 8 | 10 | 12 |
| C | 6 | 8 | 10 |
| D | 4 | 6 | 8 |
| E | 0 | 0 | 0 |

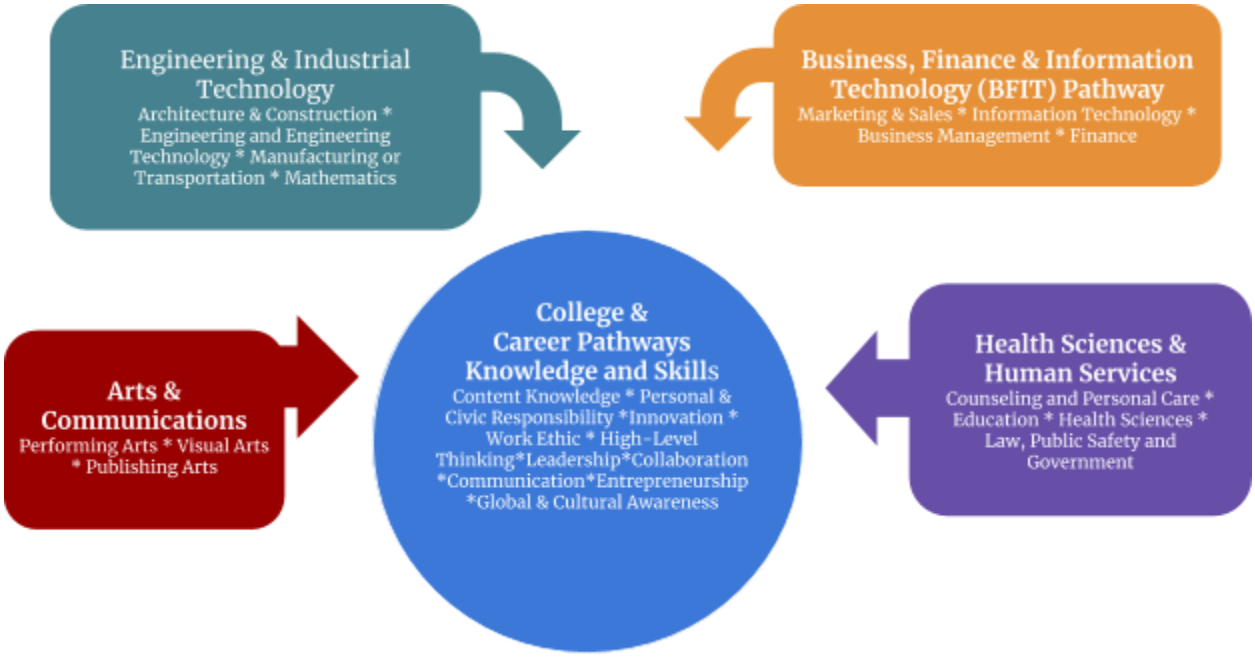
| **EXAMPLES** | | | | |
|---|---|---|---|---|
| **Ex. 1 - CP English IV, Grade A** | | | | |
| (CG) | | (CV) | | (QP) |
| 12 | x | 1.0 | = | 12 |
| **Ex. 2 - AP Biology, Grade A** | | | | |
| 14 | x | 1.5 | = | 21 QP |

⇒Total quality points for all final grades earned determine class rank

⇒Class rank calculations are cumulative and includes all final grades from 9 through 12

# Career and College Pathways

*College and Career Clusters and Pathways*




According to the National Association of State Directors of Career Technical Education Consortium (2013), "The National Career Clusters™ Framework consists of 16 Career Clusters™ and related Career Pathways to help students explore different career options and better prepare for college and career. The Career Clusters™ and related Career Pathways serve as an organizing tool for schools, small learning communities, academies, and magnet schools to develop more effective programs of study and curriculum." Each of the pathways is aligned to the Southmoreland High School's Course of Studies to provide students an outline to follow when selecting courses and electives that are associated with a potential future career.

## ARTS & COMMUNICATIONS

*Designed to cultivate students' awareness, interpretation, application, and production of visual, verbal and written work.*

**PATHWAY FOCUS AREAS:** Performing Arts (PA) Visual Arts (VA) Publishing Arts (PUA)

| Are you interested in... | Can you... | Do you enjoy... |
|---|---|---|
| News Reporting & Writing | Sing | Making Videos |
| Interviewing & Reviewing | Play an Instrument | Working with Film Props |
| Multi-Media Production | Be Creative | Seeking Creative Ideas |
| Acting | Act | Working with South Effects |
| Radio, TV, Film, Video | Articulate Clearly | Performing for an Audience |
| Performing in a band, chorus | Write and Conduct Interviews | Working with Computers |
| Attending Concerts | Meet Deadlines | Drawing |
| | Write | Taking Photographs |

If you answer "YES" to most of these questions, consider a future in one of the sample occupations which are listed below

| Entry Level (OJT) | Technical/Skilled (1-3 Years) | Professional (4+ Years) |
|---|---|---|
| Model (PA) | Actor (PA) | Art or Music Teacher (PA, VA) |
| Radio Operator (PA) | Book Illustrator (PUA) | Film Editor (PA) |
| Stage Hand (PA) | Choreographer (PA) | Art or Music Critic (PA, VA) |
| Stunt Performer (PA) | Dancer (PA) | Music Director (PA) |
| Film Loader (VA) | Disc Jockey (PA) | Set Designer (PA) |
| Floral Designer/Florist (VA) | Musician (PA) | Photographer (VA) |
| Sound Technician (VA) | Talent Agent (PA) | Art Historian (VA) |
| Desktop Publisher (PUA) | Artist - Fine or Craft (VA) | Animator (VA) |
| Circulation (PUA) | Broadcast Technician (VA) | Artist - Fine or Craft (VA) |
| Copy Person (PUA) | Camera Technician (VA) | Industrial Designer (VA) |
| Newsroom Worker (PUA) | Fashion Designer (VA) | Graphic Designer (VA, PU)/Web Designer (PUA) |
| Announcer (PA) | Jeweler (VA) | Interior Designer (VA) |
| Dancer (PA) | Make-up Artist (VA) | Copywriter (PU) |
| Photographer (VA) | Retail Display (VA) | Journalist (PUA) |
| Graphic Production (VA, PUA) | Web Designer (PUA) | TV/Film Communications (PUA) |
| | Graphic Artist (PUA, VA) | Public Relations Manager (PUA) |

## ARTS & COMMUNICATIONS

*Designed to cultivate students' awareness, interpretation, application, and production of visual, verbal and written work.*

## Electives for the Pathway

| 9th Grade | 10th Grade | 11th Grade | 12th Grade |
|---|---|---|---|
| Concert Choral | Concert Choral | Concert Choral | Concert Choral |
| Scottie Singers | Scottie Singers | Scottie Singers | Scottie Singers |
| Symphonic Band | Symphonic Band | Wind Symphony | Wind Symphony |
| World Languages | Digital Image Production | Digital Image Production | Digital Image Production |
| Internet & Social Media | World Languages | World Languages | World Languages |
| Webpage & Mobile Apps | Game Programming | Game Programming | Game Programming |
| Graphic Arts | Music Theory | Music Theory | Music Theory |
| | Multimedia Production for Social Media | Multimedia Production for Social Media | Multimedia Production for Social Media |
| | Commercial Graphics | Commercial Graphics | Commercial Graphics |
| | Prototyping | Prototyping | Prototyping |
| | Musical Arts 101/ 102 | Musical Arts 101/ 102 | Musical Arts 101/ 102 |
| | Internet & Social Media | Internet & Social Media | Internet & Social Media |
| | Graphic Arts | Graphic Arts | Graphic Arts |
| | Animation & Visual Effects | Animation & Visual Effects | Animation & Visual Effects |
| | Digital Image Production | | |
| | Graphic Design | Graphic Design | Graphic Design |
| | **CWCTC Courses** | | |
| | Graphic Design | Painting & Decorating | Commercial & Advertising Arts |
| | Computer & Information Science | | |

## ENGINEERING & INDUSTRIAL TECHNOLOGY

*Designed to enhance students' interests, awareness, and application to careers related to technologies necessary to design, develop, install, and maintain physical systems*

**PATHWAY FOCUS AREAS:** Architecture & Construction (AC) Engineering and Engineering Technology (ET) Manufacturing or Transportation (MT) Mathematician (MM))

| Are you interested in... | Can you... | Do you enjoy... |
|---|---|---|
| Building and Construction | Apply science and math | Travel |
| Tools and Equipment | Read and Understand Directions | Working with Your Hands |
| Woodworking | Solve Complex Problems | Design/Work with Projects, Models, and Prototypes |
| Math and Science | OrganizeReports and People | Working in a lab setting |
| Engineering | Use a computer | Working on a team |
| Precision Work | Understand directives and read maps | Building with your hands |
| Design and Architecture | | Operating tools and equipment |
| Engineering | | Paying close attention to detail |
| How things work | | |

If you answer "YES" to most of these questions, you might consider a future in one of the sample occupations which are listed according to post-secondary training requirements

| Entry Level (OJT) | Technical/Skilled (1-3 Years) | Professional (4+ Years) |
|---|---|---|
| Carpet Installer (AC) | Dozer Operator (AC) | Chemical Engineer (ET) |
| Drywall Worker (AC | Electric Technician (MM) | Aeronautical Engineer (ET) |
| Roofer (AC) | Metal Engineering Tech (MM) | Aerospace Engineer (ET) |
| Machine Operator (MT) | Air Traffic Controller (ET, MT) | Airline Pilot (ET) |
| Laborer (C, MT) | Mech. Engineer Tech (MM, MT) | Electrical/ Mining Engineer (ET) |
| Bus Driver (MT) | Biomedical Engineering Tech (ET) | Architect (MM, ET) |
| Apprenticeships | Chemical/Civil/Electrical Engineer Tech (ET) | Mechanical Engineer (ET) |
| Brick Mason (AC) | Architectural Engineer Tech (ET) | Biomedical Engineer (ET) |
| Carpenter (AC) | Robotics Technician (ET) | Computer Network Eng. (ET, MM) |
| Electrician (AC) | CADD/CAM Tech (ET, MM) | Nuclear Engineer (ET,MM) |
| HVAC (AC) | Laser Technician (ET, MM) | NASA Scientist (ET,MM) |
| Plumber (AC) | Electro-Optice Tech (ET, MM) | Cost Estimator (AC) |
| Surveyor (ET) | Diesel Mechanic (ET) | Landscape Engineer (ET, AC) |
| | Bus/Truck Driver (MT) | Construction Manager (AC) |

## ENGINEERING & INDUSTRIAL TECHNOLOGY

*Designed to enhance students' interests, awareness, and application to careers related to technologies necessary to design, develop, install, and maintain physical systems*

## Electives for the Pathway

| 9th Grade | 10th Grade | 11th Grade | 12th Grade |
|---|---|---|---|
| Intro to STEM | Intro to STEM | Intro to STEM | Intro to STEM |
| Graphic Communications | Graphic Communications | Graphic Communications | Graphic Communications |
| Robotics - NXT | Intro to Biotechnology | Intro to Biotechnology | Intro to Biotechnology |
| Intro to Automation | Intro to Automation | Intro to Automation | Intro to Automation |
| Structural Engineering | Robotics - NXT | Robotics - NXT | Robotics - NXT |
| Electricity/Electronics | Structural Engineering | Competitive Robotics | Competitive Robotics |
| Energy & Power Systems | Electricity/Electronics | Structural Engineering | Structural Engineering |
| CADD 2D/ 3D | Energy & Power Systems | Electricity/Electronics | Electricity/Electronics |
| Commercial Graphics | Architecture | Energy & Power Systems | Energy & Power Systems |
| | Robotics - VEX | Architecture | Architecture |
| | CADD 2D/ 3D | Robotics - VEX | Robotics - VEX |
| | Commercial Graphics | CADD 2D/ 3D | CADD 2D/ 3D |
| | | Commercial Graphics | Commercial Graphics |
| | | AP Physics 1 | AP Physics 2 |
| | **CWCTC Courses** | | |
| | Carpentry | Masonry | Plumbing |
| | Construction Trades Tech. | Robotics Engineering | Heating & Air Conditioning |
| | Electrical Tech. Occupations | Welding | Painting & Decorating |

## BUSINESS, FINANCE AND INFORMATION TECHNOLOGY (BFIT) PATHWAY

*Designed to prepare students for the world of business, finance, and information services*

**PATHWAY FOCUS AREAS:** Marketing & Sales (MS) Information Technology (IT)
Business Management (BM) Finance (F)

| Are you interested in... | Can you... | Do you enjoy... |
|---|---|---|
| A business environment | Work easily with others | Group work |
| Office management | Organize your time efficiently | Managing budgets |
| Sales | Work with statistics | Organizing a project |
| Computers and technology | Use computers | Planning events |
| Presenting to groups | Pay attention to detail | Selling products and services |
| Advertising | Solve problems | Processing numbers |
| Record keeping | Work on a team | Preparing reports |
| Insurance | Work independently | Learn new programs |

If you answer "YES" to most of these questions, you might consider a future in one of the sample occupations which are listed according to post-secondary training requirements

| Entry Level (OJT) | Technical/Skilled (1-3 Years) | Professional (4+ Years) |
|---|---|---|
| Customer Services Rep (MS) | Computer Salesperson (MS) | Marketing Manager (MS) |
| Travel Agent (MS) | Retail Buyer (MS) | Certified Public Accountant (F) |
| Telemarketer (MS) | Bank Collection Officer (F) | Financial Planner (F) |
| Bookkeeper (F) | Tax Preparer (F) | Auditor (F) |
| Cashier (F) | Claims Adjuster (F) | Underwriter (F) |
| Billing Clerk (F) | Software Technician (IT) | Computer Security Specialist (IT) |
| Title Searcher (F) | Computer Programmer (IT) | System Analyst (IT) |
| Computer Operator (IT) | Production Support Analyst (IT) | Hospital Administrator (BM) |
| Administrative Assistant (BM) | Desktop Publisher (IT. MS) | Human Resource Manager (BM) |
| Bank Teller (BM) | Medical Secretary (BM) | Chief Executive Officer (BM) |
| File Clerk (BM) | Real Estate Agent (BM, MS) | Manufacturing Sales Rep (MS, BM) |
| Retail Sales Clerk (BM) | Restaurant Manager (BM, MS) | Bank President (BM, F) |
| Secretary (BM) | Sales Representative (BM, MS) | Pharmaceutical Sales Rep (MS) |

## BUSINESS, FINANCE, AND INFORMATION TECHNOLOGY (BFIT) PATHWAY

*Designed to prepare students for the world of business, finance, and information services*

### Electives for the Pathway

| 9th Grade | 10th Grade | 11th Grade | 12th Grade |
|---|---|---|---|
| World Languages | World Languages | World Languages | World Languages |
| Internet & Social Media | AP U.S. History | AP World History | Law & Justice |
| Webpage & Mobile Apps | AP European History | Law & Justice | AP U.S. History |
| | FST | AP U.S. History | AP U.S. Government |
| | Algebra III | AP European History | AP European History |
| | Webpage & Mobile Apps | FST | FST |
| | Multimedia Production for Social Media | Algebra III | Algebra III |
| | Game Programming | Webpage & Mobile Apps | Webpage & Mobile Apps |
| | Animation & Visual Effects | Multimedia Production for Social Media | Multimedia Production for Social Media |
| | Digital Image Production | Game Programming | Game Programming |
| | | Animation & Visual Effects | Animation & Visual Effects |
| | | Digital Image Production | Digital Image Production |
| | | Advanced Computer Programming for Arduino | Advanced Computer Programming for Arduino |
| | **CWCTC Courses** | | |
| | Commercial & Advertising Art | Logistics & Warehouse Mgmnt | Graphic Design |
| | Computer & Information Science | Computer & Information Science | |

## HEALTH SCIENCE & HUMAN SERVICES

*Related to the promotion of health and treatment disease, and to cultivate students' interest, skills, and experiences for careers related to family and human needs*

**PATHWAY FOCUS AREAS:** Counseling and Personal Care (CPC) Education (E)
Health Sciences (HS) Law, Public Safety, and Government (LPG)

| Are you interested in... | Can you... | Do you enjoy... |
|---|---|---|
| Lifespan Development | Organize Well | Helping and protection others |
| Family and social services | Plan and direct programs | Working with people |
| Teaching | Communicate well | Counseling & Advising People |
| Counseling | Assume Leadership | Working on scientific research |
| Health care environment | Work with a team | |
| Science and medicine | Pay attention to detail | Making a contribution to society |
| Medical research | Use a computer and technology | Working with numbers |
| Pharmacy | Collect and analyze data | Working with research |
| Physical therapy | Work with science & math theories | Handling customer needs |
| Sports/Fitness | Work with people in need | Serving others' needs |

If you answer "YES" to most of these questions, you might consider a future in one of the sample occupations which are listed according to post-secondary training requirements

| Entry Level (OJT) | Technical/Skilled (1-3 Years) | Professional (4+ Years) |
|---|---|---|
| Child Care Worker (CPC) | Certified Nursing Assistant (HS) | Registered Nurse (HS) |
| Hospital Worker (HS) | Cosmetologist (COC) | Funeral Director (CPC) |
| Home Health Aide (CPC) | Fashion Designer (CPC) | Speech & Language Pathologist (HS) |
| Library Assistant (E) | Dental Hygienist (HS) | Principal/Teacher/Librarian (E) |
| Armed Services Career (LPG) | Massage Therapist (CPC) | Ophthalmologist (HS, STM) |
| Bailiff (LPG) | Mortician (CPC) | City Manager (LPG) |
| Postal Services Worker (LPG) | Truck Driver (CPC) | Pharmacist (HS) |
| Security Guard (LPG) | Teacher's Aide (E) | Dietician (HS) |
| Utility Worker (LPG) | Licensed Practical Nurse (HS) | Lawyer (LPG) |
| Dialysis/EEG Technician (HS) | Fire Fighter (LPG) | Criminologist/Forensic Criminologist (LPG) |
| Animal Caretaker (HS) | Medical Lab/ Radiological Technical | Parole Officer (LPG) |
| Hazardous Waste Tech (STM) | Paralegal | Mental Health Counselor (CPC) |
| Nurse's Aid | Postmaster (LPG) | Physical/Occupational Therapist (HS) |
| | Respiratory Therapist (HS) | Physician (HS)/Veterinarian (HS, STM) |

## HEALTH SCIENCE & HUMAN SERVICES

*Related to the promotion of health and treatment disease, and to cultivate students' interest, skills, and experiences for careers related to family and human needs*

## Electives for the Pathway

| 9th Grade | 10th Grade | 11th Grade | 12th Grade |
|---|---|---|---|
| World Languages | World Languages | World Languages | World Languages |
| Internet & Social Media | AP Biology | Anatomy & Physiology | Anatomy & Physiology |
| Game Programming | Internet & Social Media | AP Physics 1 | AP Physics 2 |
| | Game Programming | AP Biology | AP Biology |
| | Multimedia Production for Social Media | AP Chemistry | AP Chemistry |
| | AP U.S. History | Algebra III | Algebra III |
| | | FST | AP Statistics |
| | | Intro to Psychology | FST |
| | | Multimedia Production for Social Media | Intro to Psychology |
| | | AP U.S. History | Multimedia Production for Social Media |
| | | Law & Justice | AP U.S. Government |
| | | AP World History | AP U.S. History |
| | | | Law & Justice |
| | **CWCTC Courses** | | |
| | Health Occupations Technology | Sports Therapy & Exercise Science | Cosmetology |
| | Protective Services | | |

# COURSE LIST

| Language Arts 100-199 | | | | | |
|---|---|---|---|---|---|
| ***Course #*** | ***Course*** | ***Group*** | ***Length*** | ***Credit*** | ***Grade*** |
| 102 | English I | CP | All year – 6 days | 1 | 09 |
| 104 | English ESL I | A | All year – 6 days | 1 | 09 |
| 112 | English II (***Keystone Course)*** | CP | All year – 6 days | 1 | 10 |
| 113 | Advanced (Pre-AP) English II (***Keystone Course)*** | CP | All year – 6 days | 1 | 10 |
| 114 | English ESL II | A | All year – 6 days | 1 | 10 |
| 122 | English III | CP | All year – 6 days | 1 | 11 |
| 126 | English ESL III | A | All year – 6 days | 1 | 11 |
| 128 | English III | AP | All year – 6 days | 1 | 11 |
| 132 | English IV | CP | All year – 6 days | 1 | 12 |
| 138 | English IV | AP | All year – 6 days | 1 | 12 |
| 139 | English ESL IV | A | All year – 6 days | 1 | 12 |
| 167 | Composition | CP | All year – 3 days | 0.5 | 10-12 |
| 168 | Advanced Composition | CP | All year – 3 days | 0.5 | 11-12 |
| 188 | Communication for Publication | CP | All Year – 6 days | 1 | 11-12 |

| Social Studies 200 - 299 | | | | | |
|---|---|---|---|---|---|
| ***Course #*** | ***Course*** | ***Group*** | ***Length*** | ***Credit*** | ***Grade*** |
| 200 | Accelerated (Pre-AP) World History and Geography | CP | All year – 6 days | 1 | 09-10 |
| 205 | U.S. History/Civil War—1939 | CP | All year – 6 days | 1 | 09 |
| 215 | U.S. History/WWII—Present | CP | All year – 6 days | 1 | 10 |
| 217 | World History | CP | All year – 6 days | 1 | 11 |
| 232 | American Issues | CP | All year – 6 days | 1 | 12 |
| 235 | Intro. to Psychology | CP | Semester (1st) – 6 | 0.5 | 11-12 |
| 236 | Law and Justice | CP | Semester (2nd) – 6 | 0.5 | 11-12 |
| 239 | United States History | AP | All year – 6 days | 1 | 10-12 |
| 240 | European History | AP | All year – 6 days | 1 | 10-12 |
| 241 | World History | AP | All year – 6 days | 1 | 11 |
| 242 | U.S. Government | AP | All year – 6 days | 1 | 12 |

| Mathematics 300 – 399 | | | | | |
|---|---|---|---|---|---|
| ***Course #*** | ***Course*** | ***Group*** | ***Length*** | ***Credit*** | ***Grade*** |
| 301 | Algebra I - GRADE 9 ***(Keystone Course)*** | CP | All year – 6 days | 1 | 09 |
| 318 | Modern Geometry | CP | All year – 6 days | 1 | 09-12 |
| 319 | Advanced Modern Geometry | CP | All year – 6 days | 1 | 09-10 |
| 322 | Algebra II | CP | All years – 6 days | 1 | 10-11 |
| 323 | Advanced Algebra II | CP | All year – 6 days | 1 | 09-12 |
| 324 | Advanced Algebra III | CP | All year – 6 days | 1 | 10-12 |
| 325 | Finite/Statistics/Trig. | CP | All year – 6 days | 1 | 10-12 |
| 331 | Algebra III | CP | All year – 6 days | 1 | 10-12 |
| 332 | Pre-Calc./Discrete | CP | All year – 6 days | 1 | 10-12 |
| 342 | AP Calculus | AP | All year – 6 days | 1 | 12 |
| 343 | AP Statistics | AP | All year – 6 days | 1 | 11-12 |
| 344 | Algebra I A | CP | All year – 6 days | 1 | 09 |
| 345 | Algebra I B ***(Keystone Course)*** | CP | All Year – 6 days | 1 | 10 |

| Science 400-499 | | | | | |
|---|---|---|---|---|---|
| ***Course #*** | ***Course*** | ***Group*** | ***Length*** | ***Credit*** | ***Grade*** |
| 400 | Integrated Science | CP | All year – 6 days | 1 | 09 |
| 412 | Biology ***(Keystone Course)*** | CP | All year – 6 days | 1 | 10 |
| 413 | Advanced Biology (Pre-AP) ***(Keystone Course)*** | CP | All year – 6 days | 1 | 09 |
| 420 | Chemistry | CP | All year – 6 days | 1 | 10-12 |
| 421 | Advanced Chemistry (Pre-AP) | CP | All year – 6 days | 1 | 10-12 |
| 422 | Microbiology | CP | All year – 6 days | 1 | 12 |
| 436 | Anatomy & Physiology | CP | All year – 6 days | 1 | 11-12 |
| 437 | Exploring Physical Sciences | CP | All year – 6 days | 1 | 11-12 |
| 439 | Physics | CP | All year – 6 days | 1 | 10-12 |
| 441 | AP Physics 1 w/LAB | AP | All year – 6 days | 1.5 | 10-12 |
| 442 | AP Biology w/LAB | AP | All year – 6 days | 1.5 | 10-12 |
| 443 | AP Chemistry w/LAB | AP | All year – 6 days | 1.5 | 11-12 |
| 446 | Environmental Science | CP | All year – 6 days | 1 | 12 |
| 447 | AP Physics 2 w/LAB | AP | All year – 6 days | 1.5 | 12 |

| World Languages 500-599 | | | | | |
|---|---|---|---|---|---|
| ***Course #*** | ***Course*** | ***Group*** | ***Length*** | ***Credit*** | ***Grade*** |
| 510 | Spanish I | CP | All year – 6 days | 1 | 09-12 |
| 514 | Spanish II | CP | All year – 6 days | 1 | 10-12 |
| 515 | Spanish III | CP | All year – 6 days | 1 | 11-12 |
| 560 | Spanish IV | CP | All year – 6 days | 1 | 12 |
| 520 | French I | CP | All year – 6 days | 1 | 09-12 |
| 524 | French II | CP | All year – 6 days | 1 | 10-12 |
| 525 | French III | CP | All year – 6 days | 1 | 11-12 |
| 563 | French IV | CP | All year – 6 days | 1 | 12 |

**Note:** *Students planning to attend a 4 year college or university should be aware some institutions highly recommend, but may not require, at least 2 or 3 years of a foreign language .*

| Informational Sciences 600-699 | | | | | |
|---|---|---|---|---|---|
| ***Course #*** | ***Course*** | ***Group*** | ***Length*** | ***Credit*** | ***Grade*** |
| 605 | Internet & Social Media | CP | Semester *(first)* – 6 days | 0.5 | 09-12 |
| 606 | Webpage & Mobile Apps | CP | Semester *(second)* – 6 days | 0.5 | 09-12 |
| 636 | Multimedia Productions for Social Media | CP | All year – 6 days | 1 | 10-12 |
| 666 | Game Programming | CP | All year – 6 days | 1 | 10-12 |
| 667 | Animation and Visual Effects | CP | Semester *(first)* – 6 days | 0.5 | 10-12 |
| 668 | Digital Image Production | CP | Semester *(second)* – 6 days | 0.5 | 10-12 |
| 670 | Advanced Computer Programming for Arduino | CP | All year – 6 days | 1 | 11-12 |

| Science, Technology, Engineering and Math (STEM) 700-764 | | | | | |
|---|---|---|---|---|---|
| ***Course #*** | ***Course*** | ***Group*** | ***Length*** | ***Credit*** | ***Grade*** |
| 720 | Graphic Communications | CP | All year – 6 days | 1 | 09-12 |
| 721 | Introduction to STEM | CP | All year – 3 days | 0.5 | 09-12 |
| 723 | Introduction to Biotechnology | CP | All year – 6 days | 1 | 10-12 |
| 724 | Robotics—NXT | CP | Semester *(First)* – 6 days | 0.5 | 09-12 |
| 725 | Introduction to Automation | CP | Semester *(Second)* – 6 days | 0.5 | 09-12 |
| 726 | Competitive Robotics | CP | All year – 6 days | 1 | 11-12 |
| 727 | Structural Engineering | CP | All year – 3 days | 0.5 | 09-12 |
| 731 | Electricity/Electronics | CP | Semester *(First)* – 6 days | 0.5 | 09-12 |
| 735 | Energy & Power Systems | CP | Semester *(Second)* – 6 days | 0.5 | 09-12 |
| 736 | Architecture | CP | All year – 3 days | 0.5 | 10-12 |
| 738 | Robotics—VEX | CP | Semester *(First)* – 6 days | 0.5 | 10-12 |
| 739 | Advanced Manufacturing | CP | Semester *(Second)* – 6 days | 0.5 | 10-12 |
| 740 | Commercial Graphic Design | CP | All year – 6 days | 1 | 10-12 |
| 751 | CADD 2D Engineering | CP | Semester *(First)* – 6 days | 0.5 | 09-12 |
| 752 | CADD 3D Inventor | CP | Semester *(Second)* – 6 days | 0.5 | 09-12 |
| 754 | Graphics Prototyping | CP | All year – 6 days | 1 | 10-12 |
| 755 | Life After High School (Internship) | CP | All year – 6 days | 1 | 12 |

| Fine Arts 800—901 | | | | | |
|---|---|---|---|---|---|
| ***Course #*** | ***Course*** | ***Group*** | ***Length*** | ***Credit*** | ***Grade*** |
| 801 | Art I – *Foundations of Studio Art* | CP | All year – 6 days | 1 | 09-12 |
| 811 | Art II – *Refined Studio Art* | CP | All year – 6 days | 1 | 10-12 |
| 814 | Art Applications – *Advanced Studio Arts* | CP | All year – 6 days | 1 | 11-12 |
| 814.3 | Art Applications – *Advanced Studio Arts* | CP | All year – 3 days | 0.5 | 11-12 |
| 834 | Senior Studio – *Preparing for the Future* | CP | All year – 6 days | 1 | 12 |
| 865 | Symphonic Band | CP | All year – 6 days | 1 | 09-12 |
| 865.3 | Symphonic Band | CP | All year – 3 days | 0.5 | 09-12 |
| 868 | Instrumental Music Lab | CP | All year – 3 days | 0.5 | 09-12 |
| 870 | Concert Chorale | A | All year – 6 days | 1 | 09-12 |
| 870.3 | Scottie Singers | A | All year – 3 days | 0.5 | 09-12 |
| 872.3 | Beginning Music Theory | CP | Semester *(First)* – 6 days | 0.5 | 10-12 |
| 873.3 | Advanced Music Theory | CP | Semester *(Second)* – 6 days | 0.5 | 10-12 |
| 876.3 | Musical Arts 101 | A | All year – 3 days | 0.5 | 10-12 |
| 877.3 | Musical Arts 102 | A | All year – 3 days | 0.5 | 11-12 |
| 879 | Advanced Musical Arts | CP | All year – 6 days | 1 | 11-12 |
| 880 | AP Music Theory | AP | All year – 6 days | 1 | 10-12 |
| 881 | Advanced Musicianship | CP | All year – 6 days | 1 | 11-12 |
| 882.3 | Percussion Methods | CP | All year– 3 days | 0.5 | 9-12 |

| Health and Physical Education | | | | | |
|---|---|---|---|---|---|
| ***Course #*** | ***Course*** | ***Group*** | ***Length*** | ***Credit*** | ***Grade*** |
| 900 | Physical Education 4 Life | A | All year – 3 days | 0.5 | 10-12 |
| 930 | Physical Education I/Health | A | All year – 3 days | 0.5 | 09-12 |
| 948 | Adaptive Physical Ed. | A | All year – 3 days | 0.5 | 09-12 |

# Central Westmoreland Career & Technology Center
# Technical Courses

***Note: Grades 10, 11 & 12 will earn 3 credits for the program plus 0.50 credit for Wellness (Physical Education) each year.***

| | |
|---|---|
| 972 | Automotive Technology |
| 973 | Construction Trades Technology |
| 974 | Carpentry |
| 975 | Commercial and Advertising Art |
| 976 | Cosmetology |
| 978 | Culinary Arts |
| 979 | Graphic Design |
| 980 | Heating & Air Conditioning |
| 982 | Machine Trades Technology |
| 983 | Painting and Decorating Trades |
| 984 | Plumbing |
| 985 | Power Line |
| 986 | Auto Collision Technology |
| 987 | Electrical Occupations Technology |
| 989 | Health Occupations Technology |
| 990 | Horticulture |
| 991 | Logistics & Materials Management |
| 992 | Masonry |
| 993 | Welding |
| 994 | Robotics Engineering |
| 995 | Sports Medicine & Exercise Therapy |
| 996 | Protective Services |
| 997 | Computer & Information Science |

***All students that attend CWCTC will be required to take a Wellness course each year.***
***These students will earn 0.50 credit towards their physical education requirement.***

| | |
|---|---|
| 10th grade | #931VT |
| 11th grade | #951VT |
| 12th grade | #952VT |

# Course Descriptions

♦ NCAA approved high school courses

Keystone Test Required

## Language Arts 100 - 199

***Note:*** *All English courses **require** a term paper and specific writing assignments. Failure to complete these specific requirements will result in a failing grade regardless of the nine weeks grades.*

**102 English I** **CORE CLASS**

♦ Group CP All year — 6 days Credit 1 Grade 09

This course is designed to improve your reading, writing and speaking skills. Students who take this course will develop analytical and interpretive skills necessary for success in college. Students will study a variety of texts including fiction, nonfiction, and composition. Additionally, students will understand and use the writing process. Students will also develop a fundamental understanding of research activities. Maintaining an up-to-date, organized record of class work is a requirement for this course.

**Prerequisite:** None

**104 English ESL I** **CORE CLASS**

Group A All year — 6 days Credit 1 Grade 09

This course provides first level English for students who qualify for English as a second language instruction.

**112 English II** **CORE CLASS**

♦ Group CP All year — 6 days Credit 1 Grade 10

This course provides a variety of reading, writing and speaking experiences for the college-bound student. It is designed to prepare students for advanced study techniques. Students will read extensively and develop skills in interpreting and analyzing literature. Students planning to attend college, you should schedule this course.

**Prerequisite:** None

**113 Advanced English II** **CORE CLASS**

♦ Group CP All year — 6 days Credit 1 Grade 10

This course is about the continued development of good habits of mind. This is accomplished through engaging students in careful reading and in critical analysis of literature. Through the close reading of selected poetry, drama, nonfiction and novels, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students consider a work's structure, a writer's style, arguments and themes. In addition to considering a work's literary artistry, students reflect on the social and historical values it reflects and embodies. Careful attention to both textual detail and historical context provides a foundation for interpretation. Students will demonstrate what they've learned through many challenging writing assignments where they defend, refute or qualify arguments of theme and meaning through synthesis from various readings we have studied.

**Prerequisite:** Recommendation of Language Arts department

**114 English ESL II** **CORE CLASS**

Group A | All year — 6 days | Credit 1 | Grade 10

**122 English III** **CORE CLASS**

♦ Group CP | All year — 6 days | Credit 1 | Grade 11

This is a survey course in American literature for college bound students. Emphasis is on the reading and analysis of major American writings. Students will continue to develop writing skills, with emphasis on expository and analytical writing based upon the course readings, including core units on the SAT. Those considering going on to college should take this course. A research paper is required.

**126 English ESL III** **CORE CLASS**

Group A | All year — 6 days | Credit 1 | Grade 11

**128 English III AP** **CORE CLASS**

♦ Group AP | All year — 6 days | Credit 1 | Grade 11

This course offers academically advanced students challenging, competitive and in-depth material in a seminar setting. While the anthology provides a core focus on American literature, culture and history, the class will also refine writing and research skills through research papers, reports and projects. The course also requires both in and out of class reading of novels, and a higher level of academic effort in class discussion. Students may take the AP exam to qualify for college credits.

**Prerequisite:** Recommendation of Language Arts department

**132 English IV** **CORE CLASS**

♦ Group CP | All year — 6 days | Credit 1 | Grade 12

This course is designed to provide a smooth transition from high school to college. You will prepare for SATs and college placement tests and practice the basic composition and study skills necessary for success in college. Course content consists of a survey of English literature with emphasis on the development of the English language and our literary heritage. Writing a research paper is a class requirement.

**138 English IV AP** **CORE CLASS**

♦ Group AP | All year — 6 days | Credit 1 | Grade 12

This course offers gifted and academically advanced students the opportunity to compete and exchange ideas. Although an updated English anthology provides the focus, students will present research reports, papers and committee projects. In addition to English literature, culture and language, students will refine reading, writing and study skills. The course also requires a number of novels to be read both in and out of class. The Advanced Placement program demands an effort toward higher goals of academic achievement. Students may take the AP Exam for college credit. Writing research papers is a class requirement.

**Prerequisite:** Recommendation of Language Arts department

**139 English ESL IV** **CORE CLASS**

Group A | All year — 6 days | Credit 1 | Grade 12

**167 Composition** **ELECTIVE**

Group CP | All year — 3 days | Credit 0.5 | Grade 10-12

Students will examine the writing process for various types of writing including journalism, creative writing, blogging, analysis and technical writing. Readings, discussions and various writing assignments from a range of popular, professional, online and academic publications will help students theorize about their own choices as writers. After exploring all types of writing, students will choose a medium and create independent projects for publication.

**168 Advanced Composition** **ELECTIVE**

Group CP | All year — 3 days | Credit 0.5 | Grades 11-12

Advanced Composition is a writing-intensive course designed to hone writing skills. Students can expect to develop a variety of techniques for both analytical and creative writing while exploring imaginative uses of language through the major genres (fiction, poetry, and literary nonfiction) with emphasis on the student's own unique style and preferred subject matter. Students will write and submit original work for publication.

**Prerequisite:** Composition I *or* AP English III

**188 Communication for Publication** **ELECTIVE**

Group CP | All year — 6 days | Credit 1 | Grade 11-12

This class is an introduction to all aspects of communication and publication including writing, revising, editing and publishing in various formats. It is designed to provide students with a groundwork in media for news broadcasting or public speaking, as well as the publication of a schoolwide literature and arts magazine that will highlight student creative talents and abilities. Students will further have the opportunity to present their work to the student body via the literary magazine website and Youtube broadcast in conjunction with multimedia classes.

## Social Studies 200 - 299

**200 Accelerated (Pre-AP) World History and Geography** **CORE CLASS**

♦ Group CP | All year — 6 days | Credit 1 | Grade 09-10

Accelerated (Pre-AP) World History and Geography focuses deeply on the concepts and skills that have maximum value for college, career and civic life. This elective course is designed for those 9th & 10th grade students who intend to focus heavily on the humanities and to prepare them for future AP social studies courses. Accelerated (Pre-AP) World History and Geography has four units, one geography unit and three world history units that cover different historical eras. The geography unit is universal; all schools must teach it. Individual schools choose and implement the three World History units that best align with their local and state standards.

**Prerequisite:** Recommendation of the Social Studies Department

**205 US History/Civil War—1939** **CORE CLASS**

♦ Group CP All year — 6 days Credit 1 Grade 09

This U.S. History course covers the time period from 1860-1939. This class will study the Civil War, the prejudices, pressures and goals of Reconstruction, national and international American expansion, cultural and industrial changes that helped shape modern America, the role of the United States in world affairs, causes and effects of World War I, the Roaring 20's, the Great Depression and President Franklin Delano Roosevelt and the New Deal. A major emphasis will be placed on how the events of the past have formed and affected present day America. Major current event topics and governmental issues and procedures will be incorporated into the course, when applicable. The course involves intensive activities and assessments such as: note-taking lectures, oral reports, written reports, research reports, projects, primary document analysis activities, group work and class discussions. The CP student will be expected to participate in a knowledgeable exchange of views and independently develop research-based assignments.

**215 US History/WWII—Present** **CORE CLASS**

♦ Group CP All year — 6 days Credit 1 Grade 10

This course is a study of U.S. Contemporary History which will emphasize events relating to domestic and foreign policy in the United States and abroad from 1939 to the present. During the course of the year, students will be introduced to and demonstrate knowledge about important people, places and events associated with this time period. Major current event topics and governmental issues and procedures will be incorporated into the course, when applicable. The CP student will be expected to participate in a knowledgeable exchange of views and independently develop research-based assignments.

**217 World History** **CORE CLASS**

♦ Group CP All year — 6 days Credit 1 Grade 11

World History is approached as a problems study, with emphasis on world affairs. Students will be introduced to the history of cultures other than their own. A necessary examination of geography, culture, politics and economics will be interwoven with a strong historical element. Major regions to be covered include: Southwest Asia, China, Southeast Asia, Europe, Russia, the Indian Subcontinent and Africa. Student assessment will be directed toward written assignments.

**232 American Issues** **CORE CLASS**

♦ Group CP All year — 6 days Credit 1 Grade 12

This course is a study of America Issues focusing on all three levels of government. Federal, Pennsylvania and local governments are covered in detail from their specific structures through their duties and powers. Along with a focus on government, the course will focus on our system of justice, centering on the constitution and its influence on court decisions. Aspects of civics, such as citizenship, government participation, public service and comparative political and economic systems will be emphasized, as well. The course will utilize current social, political and economic issues to give the students a better understanding of the foundations and implementations of the United States political system.

**235 Introduction to Psychology** **ELECTIVE**

♦ Group CP Semester — 6 days Credit 0.50 Grades 11-12

The course is an introduction into general psychology. Introduction to Psychology is a survey course of basic psychological approaches, theory and practical knowledge. During the course of the year, students will be introduced to and demonstrate knowledge about important people, approaches, theories, procedures, biological and social influences that are pertinent to the understanding of basic psychology.

**236 Law and Justice** **ELECTIVE**

♦ Group CP Semester— 6 days Credit 0.50 Grades 11-12

This course will include an introduction into the role of law in American society. A brief historical development of our legal system and its shaping of America will be included. Discussion of basic concepts and the due process philosophy will be discussed.

**239 United States History AP** **Supplants 215/ELECTIVE**

♦ Group AP All year — 6 days Credit 1 Grades 10-12

Advanced Placement U.S. History is a college-level course in American History that covers U.S. History pre-Columbian period through the present. It is designed for the student who has shown exceptional ability in Social Studies. Highly developed critical thinking skills and proficiency in historical essay writing are necessary. Examinations, essays, research and supplemental reading assignments are similar to those given at the university level. Students are responsible for a summer assignment and a research project.

**Prerequisite:** Recommendation of the Social Studies department

**240 European History AP** **ELECTIVE**

♦ Group AP All year — 6 days Credit 1 Grade 10-12

Advanced Placement European History is a college level course in European History 1450-present. It is designed for the student who has shown exceptional ability in social studies. Highly developed critical thinking skills and proficiency in historical essay writing are necessary. Examinations, essays, research and supplemental reading assignments are similar to those given at the university level. Students are responsible for a summer assignment and a research project.

**Prerequisite:** Recommendation of the Social Studies department

**241 World History AP** **Supplants 217/ELECTIVE**

♦ Group AP All year — 6 days Credit 1 Grade 11

This course explores the expansive history of the human world. You will learn facts and critical thinking skills necessary to analyze historical evidence. Five themes will be used as a frame of reference in the chronological study of our world's history: (1) Interaction between humans and the environment, (2) development and interaction of cultures, (3) state-building, expansion and conflict, (4) creation, expansion and interaction of economic systems, (5) development and transformation of social structures. You will acquire the ability to examine change over time, including the causation of events as well as the major effects of historical developments, the interconnectedness of events over time and the spatial interactions that have geographic, political, cultural and social significance. It is important for each student to develop the ability to connect the local to the global, and vice versa. You also will learn how to compare developments in different regions and in different time periods as well as contextualize important changes and continuities throughout world history.

**Prerequisite:** Recommendation of Social Studies department

**242 United States Government and Politics** **Supplants 232/ELECTIVE**

♦ Group AP All year — 6 days Credit 1 Grade 12

This AP course in United States Government and Politics will give students an analytical perspective on government and politics in the United States. This course includes both the study of general concepts used to interpret U.S. government and politics and the analysis of specific examples. It also requires familiarity with the various institutions, groups, beliefs and ideas that constitute U.S. government and politics. While there is no single approach that an AP United States Government and Politics course must follow, students should become acquainted with the variety of theoretical perspectives and explanations for various behaviors and outcomes. Students successfully completing this course will learn the following: know important facts, concepts and theories pertaining to U.S. government and politics; understand typical patterns of political processes and behavior and their consequences (including the components of political behavior, the principles used to explain or justify various government structures and procedures, and the political effects of these structures and procedures); be able to analyze and interpret basic data relevant to U.S. government and politics (including data presented in charts, tables, and other formats) and be able to critically analyze relevant theories and concepts, apply them appropriately and develop their connections across the curriculum. All students are responsible for a summer assignment and a research project.

**Prerequisite:** Recommendation of the Social Studies department

## Mathematics 300 – 399

**301 Algebra I - Grade 9** **CORE CLASS**

♦ Group CP All year — 6 days Credit 1 Grades 09-10

Algebra I course that teaches the Common Core standards that are needed to be successful in higher mathematics. Topics to be taught in this course include: Exploring variables and open sentences, equations, linear functions, proportions, probability, and rational numbers; solving and graphing linear equations using slope and intercepts, solving and graphing linear inequalities, solving systems of equations and equations involving absolute value, polynomials, exploring rational expressions and equation, and simplifying quadratic and exponential expressions.

**Prerequisite:** Students that do not reach proficiency on the Algebra I Keystone Exam in grade 8

**318 Modern Geometry** **CORE CLASS**

♦ Group CP All year — 6 days Credit 1 Grades 09-10

You will work with coordinates and measure ideas. Ideas of congruence and similarity are developed through transformations. Three-dimensional work is studied throughout the course.

**Prerequisite:** Keystone scores, PVAAS, Algebra I data, and teacher recommendation

**319 Advanced Modern Geometry** **CORE CLASS**

♦ Group CP All year — 6 days Credit 1 Grades 09-10

You will analyze characteristics and properties of two and three dimensional geometric shapes and develop mathematical arguments about geometric relationships. Deductive and inductive reasoning will be used to solve problems and write formal proofs. The material will be covered at a faster pace than Modern Geometry, and Advanced Algebra topics will be introduced.

**Prerequisite:** Advanced Keystone scores, PVAAS , Algebra I data and teacher recommendation

**322 Algebra II** **CORE CLASS**

♦ Group CP All year — 6 days Credit 1 Grades 09-12

This is the second course of study for students planning on attending college. It reviews and builds on concepts of Algebra I, covering systems of equations, inequalities, quadratic and polynomial functions, rational expressions, and logarithms. Graphic calculators are used throughout to investigate and solve problems. Creative approaches to problem solving, communicating mathematical ideas, and real-world problem solving will be emphasized.

**323 Advanced Algebra II** **CORE CLASS**

♦ Group CP All year — 6 days Credit 1 Grades 10-12

This is the second course of study for students planning on attending college, and who wish to take Calculus (AP) their senior year. It reviews and builds on concepts of Algebra I, covering systems of equations, inequalities, quadratic and polynomial functions, rational expressions, and logarithms. Graphic calculators are used throughout to investigate and solve problems. Creative approaches to problem solving, communicating mathematical ideas, and real-world problem solving will be emphasized.

**Prerequisite:** Advanced Keystone scores, PVAAS, and Algebra I data, as well as teacher recommendation

**324 Advanced Algebra III** **CORE CLASS**

♦ Group CP All year — 6 days Credit 1 Grades 10-12

This course is for the college bound student. It will review and reinforce Algebra II and Advanced Algebra II concepts and skills. You will study new topics that include logarithms, rational and exponential functions, matrices, sequences, analytical geometry and probability. This course is designed for the student to become better equipped for advanced courses in mathematics.

**Prerequisite:** Teacher recommendation

**325 Finite/Statistics/Trigonometry** **CORE CLASS**

♦ Group CP All year — 6 days Credit 1 Grades 10-12

This course enables students to display, describe, transform, and interpret numerical information represented as data, graphs, or equations. It integrates statistical, algebraic, and trigonometric concepts, and also previews pre-calculus in its work with functions.

**Prerequisite:** Minimum of Algebra II or Advanced Algebra II, and teacher recommendation

**331 Algebra III** **CORE CLASS**

♦ Group CP All year — 6 days Credit 1 Grades 10-12

This course reviews and builds on concepts of Algebra II. Concepts such as systems of equations and inequalities, quadratic and polynomial functions and relations, rational and radical functions and relations will be reinforced. New topics will include exponential functions and relations, and probability. Graphic calculators will be used to investigate and solve problems.

**Prerequisite:** Keystone, PVAAS, and teacher recommendation

**332 Pre-Calculus** **CORE CLASS**

♦ Group CP All year — 6 days Credit 1 Grades 10-12

This course carries the premise that not all students who go to college take calculus. However, we assume in this course that the students are taking mathematics because they need it for college, and that by the end of the year they should be prepared for calculus. This course emphasizes the background theory a student must know to be successful in many calculus courses, and discrete math.

**Prerequisite:** Advanced Algebra II, Advanced Modern Geometry, and teacher recommendation

**342 AP Calculus** **CORE CLASS**

♦ Group AP All year — 6 days Credit 1 Grade 12

You will be presented a course in the calculus of functions of one real variable; topics in analytic geometry are also presented. You will be given selected exercises that require straightforward application of the material, as well as exercises which involve subtle use of new ideas in conjunction with concepts already developed. Students may take the AP exam for college credit.

**Prerequisite:** Teacher recommendation

**343 AP Statistics** **CORE CLASS**

♦ Group AP All year — 6 days Credit 1 Grades 11-12

The AP Statistics course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding.

**Prerequisite:** Algebra II and teacher recommendation.

**344 Algebra I A** **CORE CLASS**

Group CP All year — 6 days Credit 1 Grade 09

This course is the foundation for Algebra 1. Topics of this Algebra Course will focus on simplifying square roots, exponents, simplifying and factoring polynomial expressions, relations and functions, and solving and graphing linear equations and inequalities. Students will be able to apply these concepts and relate them to real-world situations. Students enrolled in this course are required to take Algebra IB the following year.

**Prerequisite:** Teacher recommendation and PSSA scores

**345 Algebra I B** **CORE CLASS**

♦ Group CP All year — 6 days Credit 1 Grades 10

This course is a continuation of the Algebra I A class. Topics of this Algebra course will focus heavily on graphing and applying linear equations and inequalities, systems of linear equations and inequalities, explore and simplify quadratic and exponential expressions and graphs, probability and data analysis, and introduce the topic of graphing quadratic functions. Students enrolled in this course will take the Algebra I Keystone.

**Prerequisite:** Students must earn Algebra I A credit

# Science 400-499

**400 Integrated Science** **CORE CLASS**

♦ Group CP | All year — 6 days | Credit 1 | Grade 09

This course is an introductory level course designed to give 9th grade students a background in the major branches of science. This course will introduce topics to students that they will learn in more detail throughout their high school careers. An "integrated science" course serves the purpose of a "general science" course covering the inquiry of science, earth science, chemistry and life sciences.

**412 Biology** **CORE CLASS**

♦ Group CP | All year — 6 days | Credit 1 | Grades 09-10

CP Biology is designed to give students experience in exploring and examining core concepts in biological science. These core concepts include scientific process, biochemistry, cell biology, genetics, evolution, ecology and life forms. Laboratory activities are an important part of the biological science experience. In addition to core concepts, CP Biology develops skills required for a successful transition to college-level course work. These skills include writing, critical thinking, organization and independent study skills.

**413 Advanced Biology (Pre-AP)** **CORE CLASS**

♦ Group CP | All year — 6 days | Credit 1 | Grade 09

Pre-AP Biology focuses deeply on the concepts and skills that have maximum value for college and career. This course concentrates on the core areas of ecological systems, cellular systems, evolution and genetics. Rather than understanding content topics in isolation, students will make meaningful connections between the structures, processes and interactions that exist across biological systems—from cells to ecological communities.

**Prerequisite:** Proficiency on Grade 8 PSSA Science exam, teacher recommendation and final grade 8 science grade

**420 Chemistry** **CORE CLASS**

♦ Group CP | All year — 6 days | Credit 1 | Grades 10-12

In this first year Chemistry course you will investigate the atom, electrons, energy, matter, mass relationships and chemical bonding. Some of the basic concepts explored in Chemistry will include atomic theory, periodic properties of the elements, stoichiometry, bonding theory and molecular geometries, types of chemical and physical changes, gases and thermodynamics. There will be a laboratory component of the course, as well.

**Prerequisite:** Algebra with a "B" average or better and teacher recommendation

**421 Advanced Chemistry (Pre-AP)** **CORE CLASS**

♦ Group CP All year — 6 days Credit 1 Grades 10-12

This is an advanced first-year chemistry course that will cover all of the material of the Introductory Chemistry Course, as well as incorporating several advanced topics from the Advanced Placement Chemistry course. An emphasis will be placed on depth of study, and the course will include several AP level laboratory experiments. Topics to be covered will include statistical treatment of data, identification of chemical compounds, writing and balancing chemical equations, the mole concept and stoichiometry, solutions, acid—base reactions, oxidation—reduction reactions, gases and thermochemistry. This course is intended for students considering careers in science or medicine, with an expectation that students completing the course will continue with the Advanced Placement Chemistry course during the 11th grade year.

**Prerequisite:** Algebra and Biology with a "B" average or better and teacher recommendation

**422 Microbiology** **CORE CLASS/ELECTIVE**

Group CP All year — 6 days Credit 1 Grade 12

Microbiology is a course designed to explore the many aspects of bacteriology (bacteria), virology (viruses) and mycology (fungi). Core concepts covered will include structure, function and classification of microbial organisms along with proper aseptic technique, isolation, serial dilution, plating and culturing. Food microbiology and Clinical aspects such as infectious diseases and treatments where students will learn about the modes of action of common antibiotics against different types of bacteria will be covered in this course. As in all science classes, laboratory activities will play an important part of this experience.

**Prerequisite:** "B" or better in CP Biology AND CP Chemistry, passage of the Biology Keystone, and teacher recommendation. **Note:** A grade of "C" or better in AP Biology is recommended.

**436 Anatomy and Physiology** **CORE CLASS/ELECTIVE**

♦ Group CP All year — 6 days Credit 1 Grades 11-12

This course is designed to give students an in-depth understanding of the human body with emphasis on its structure and function. This is a fundamental course for students interested in health-related careers, but also serves to increase our understanding of medical terminology and concepts necessary to deal with a technological and changing world. There will be some selected and limited lab work, including dissections of the eye, fetal pig, heart and lungs. Topics will include tissues, integumentary, skeletal, muscular, nervous, senses, endocrine systems, cardiovascular respiratory, digestive, urinary and reproductive systems.

**Prerequisite:** Biology

**437 Exploring the Physical Sciences** **CORE CLASS/ELECTIVE**

♦ Group A All year — 6 days Credit 1 Grades 11-12

This course is intended as an introduction to the physical sciences. Fundamentals of chemistry, physics, electricity, engineering, mechanics and laboratory techniques will be illustrated using a "hands-on" approach that will combine theory with instrumentation and experimentation. In addition, vocational opportunities and practical applications of the physical sciences will be highlighted. The course will include 1 or 2 days per week of laboratory experiments.

**439 Physics** **CORE CLASS/ELECTIVE**

♦ Group CP All year — 6 days Credit 1 Grades 10-12

This program of studies in physics should provide you with an introduction to the field of physics. You will be presented with the basic physical laws and procedures by which they are established. You will have an opportunity to gain experience in application of scientific methods of investigation as used in physics. You will be exposed to the concept of mechanics, matter and energy, wave motion, electricity and magnetism, electronic, atomic physics and nuclear physics.

**441 Advanced Placement Physics 1** **CORE CLASS/ELECTIVE**

♦ Group AP All year — 9 periods Credit 1.50 Grades 10-12

AP Physics 1 will start with introductory physics skills and will progress into the study of straight line motion, force, energy, rotational motion, momentum and electrostatics. AP Physics 1 is highly recommended for students planning to enter the life sciences, pre-medicine or engineering fields. Students may be eligible to receive college credit for physics, based on the rules of their selected college. It is recommended, but not required, that students take CP Physics prior to AP Physics 1.

**Prerequisite:** Algebra

**447 Advanced Placement Physics 2** **CORE CLASS/ELECTIVE**

♦ Group AP All year — 9 periods Credit 1.50 Grades 11-12

AP Physics 2 is the continuation of AP Physics 1. Topics covered in AP Physics 2 include, thermodynamics, electric fields, electrical energy, current and resistors, magnetism, light and atomic physics. AP Physics 2 is highly recommended for students planning to enter the life sciences, pre-medicine or engineering fields. Students may be eligible to receive college credit for physics, based on the rules of their selected college.

**Prerequisite:** AP Physics 1

**442 Advanced Placement Biology** **CORE CLASS/ELECTIVE**

♦ Group AP All year — 9 periods Credit 1.50 Grades 10-12

The AP Biology curriculum parallels an introductory college biology course, placing emphasis on the eight core AP Biology themes and the twelve AP labs. Main areas of focus include: molecules, cells genetics, evolution, organisms and populations. Completion of formal lab write-ups will be expected, as well as summer reading of *Origin of Species,* by Charles Darwin. Text for the course is college level and supplements in class lectures. Students completing the course may elect to take the AP Biology Exam.

**Prerequisite:** "B" or better in CP Biology & Chemistry, passage of the Biology Keystone, teacher recommendation

**443 Advanced Placement Chemistry** **CORE CLASS/ELECTIVE**

♦ Group AP All year — 9 periods Credit 1.50 Grades 11-12

The Advanced Placement course is equivalent to two semesters of college chemistry at the science, engineering or pre-medicine major level. Students will be expected to maintain a rigorous pace that will require a great deal of independent study, reading of the text and supplemental materials and high-level problem solving. Students will follow a college-style format consisting of weekly quizzes, multi-chapter exams and comprehensive mid-term and final exams. Topics covered will include chemical reactions, stoichiometry, gases, thermochemistry, atomic and bonding theories, liquids, solids, solution chemistry, kinetics, equilibrium, acids and bases, reaction spontaneity, electrochemistry, nuclear chemistry and organic chemistry. A laboratory component is also included which will require written laboratory reports. All students taking the course will be required to take the AP Chemistry Examination.

**Prerequisite:** CP Chemistry and instructor's approval

**446 Environmental Science** **CORE CLASS/ELECTIVE**

♦ Group CP All year — 6 days Credit 1 Grade 12

In this course, students will examine topics in Environmental Science & Ecology. Course content will include current issues in environmental science, population ecology, pollution in ecosystems and local ecology in our region. This course is designed for any 12th grade student with fewer than three science credits or for any 12th grade student seeking an elective credit. **Prerequisite:** Recommendation of the Science Department

## World Languages 500 - 599

**510 Spanish I** **ELECTIVE**

♦ Group CP All year — 6 days Credit 1 Grades 09-12

The Level I Spanish course is an introduction to the language with emphasis on building vocabulary and learning basic grammar rules. Written, oral, listening and reading exercises are combined to reinforce these basic skills. This course also gives the student a foundation through which to study the geography and cultures of Spanish speaking areas of the world. *Students who have successfully completed middle school Spanish I are **not** eligible to take this course.*

**514 Spanish II** **ELECTIVE**

♦ Group CP All year — 6 days Credit 1 Grades 10-12

The Level II Spanish course focuses on understanding and speaking the target language. Increased emphasis is placed on the development of more complex grammar and writing skills. Language structures introduced in the first level are reviewed. Exposure to and appreciation of the target language is acquired through the presentation of authentic reading materials.

**Prerequisite:** Language Level I with a grade of "C" or better and teacher recommendation.

**515 Spanish III** **ELECTIVE**

♦ Group CP All year — 6 days Credit 1 Grades 11-12

The Level III Spanish course consists of advanced study of grammatical concepts such as the use of multiple verb tenses. Cultural topics such as history, current events and literature are introduced in the target language. Students are expected to communicate in Spanish as often as possible in the classroom.

**Prerequisite:** Language Level II with a grade of "C" or better and teacher recommendation

**560 Spanish IV** **ELECTIVE**

♦ Group CP All year — 6 days Credit 1 Grades 12

The Level IV Spanish course consists of an intensive study of all points of the language and culture, which are developed through conversations, compositions and the study of history and literature. Sophisticated writing and speaking skills will be emphasized with authentic materials in the classroom as well as with research projects. Students are expected to communicate exclusively in the target language. Minimal direction will be provided in English.

**Prerequisite:** Language Level III with a grade of "B" or higher teacher recommendation

**520 French I** **ELECTIVE**

♦ Group CP All year — 6 days Credit 1 Grades 09-12

The Level I French course is an introduction to the language with emphasis on building vocabulary and learning basic grammar rules. Written, oral, listening and reading exercises are combined to reinforce these skills. This course also provides the student with a foundation through which to study the geography and cultures of the French speaking areas of the world. *Students who have successfully completed middle school French I are **not** eligible to take this course.*

**524 French II** **ELECTIVE**

♦ Group CP All year — 6 days Credit 1 Grades 10-12

The Level II French course focuses on understanding and speaking the target language. Increased emphasis is placed on the development of more complex grammar and writing skills. Language structures introduced in the first level are reviewed. Exposure to and appreciation of the target language is acquired through the presentation of authentic reading materials.

**Prerequisite:** Language Level I with a grade of "C" or better and teacher recommendation

**525 French III** **ELECTIVE**

♦ Group CP All year — 6 days Credit 1 Grades 11-12

The Level III French course consists of advanced study of grammatical concepts such as the use of multiple verb tenses. Cultural topics include history, current events and literature in the francophone world. Students are expected to communicate in the target language as often as possible in the classroom.

**Prerequisite:** Language Level II with a grade of "C" or better and teacher recommendation

**563 French IV** **ELECTIVE**

♦ Group CP All year — 6 days Credit 1 Grade 12

The Level IV French course consists of an intensive study of all points of the language and culture, which are developed through conversations, compositions and the study of history and literature. Sophisticated writing and speaking skills will be emphasized with authentic materials in the classroom as well as with research projects. The goal for students is to communicate primarily in the target language.

**Prerequisite:** Language Level III with a grade of "B" or higher and teacher recommendation.

## Informational Sciences 600 - 699

**605 Internet & Social Media** **ELECTIVE**

Group CP Semester *(first)*— 6 days Credit 0.50 Grades 09-12

This course reflects on how emerging technologies will empower society to do more with the Internet. We will cover core Internet technologies, Web page design, authoring, computational thinking, networking fundamentals and technology planning. The social media aspect of this course can help students become media literate and teach collaboration, communication and the critical-thinking skills needed for future success in this technological age. In this course, you will learn how to use social media applications and be prepared to journey safely through citizenship.

**Prerequisite:** None

**606 Web Page & Mobile Apps** **ELECTIVE**

Group CP Semester *(Second)* — 6 days Credit 0.50 Grades 09-12

This course covers various aspects of Web design using forms, cascading style sheets, DOM and java scripting. The design portion also focuses on the elements and the processes of combining text, graphics and/or multimedia for page-layout designs. Students will be using various applications and software packages to design and develop quality online documents and applications. Using Android phones, students will learn to design and create useful and fun phone applications.

**636 Multimedia Production for Social Media** **ELECTIVE**

Group CP All year — 6 days Credit 1 Grades 10-12

This course covers topics that utilize contemporary methods for digitally designing multimedia. Students will learn how to digitally create multimedia and prepare it for various end products. Students will have the opportunity to apply and demonstrate proficiency in concepts learned in class by engaging in projects and activities assigned to give them experience using various forms of media to solve real-world problems. Each student will exit the course with an interactive digital portfolio of his or her work.

**666 Game Programming** **ELECTIVE**

Group CP All year — 6 days Credit 1 Grades 10-12

This course explores the concepts of Java and Media Computation with an emphasis on object-oriented programming (OOP) and design. This course will cover topics typically found in a first semester college computer programming course. Students will learn how to problem solve and to create software using the Java programming language. Course content is focused on learning the logic structures universal to most all programming languages: loops, if statements, arrays, etc. Other topics include program design and implementation, algorithm analysis and object-oriented programming design. This course is intended to serve both as an introductory course for computer science majors and for students who will major in disciplines that require significant involvement with computing.

**667 Animation and Visual Effects** **ELECTIVE**

Group CP Semester *(first)* — 6 days Credit 0.50 Grades 10-12

Students in the animation and visual effects class will combine artistic vision and technical skills to transform their wildest imaginations into moving images on the screen. This course includes 2D, 3D, stop-motion animation, visual effects for movies and motion graphics.

**668 Digital Imaging Production** **ELECTIVE**

Group CP Semester *(second)* — 6 days Credit 0.50 Grades 10-12

In this course, students master techniques to enhance digital images and add a professional polish to their work. This course offers step-by-step instructions for basics like cropping, rotating and resizing images. Students will also experiment with Photoshop's tools for correcting exposure, adjusting color and color casts, as well as working with Adobe powerful layer and selection tools. Students will learn to add text, retouch and even clone away unwanted elements from images. They will also see how to work with raw images and prepare images for print or online use.

**670 Advanced Computer Programming for Arduino** **ELECTIVE**

Group CP | All year — 6 days | Credit 1 | Grades 11-12

This course provides students with fundamental knowledge of computer programming for solving applied and electronics-related problems. Students learn how a computer works through structured programming and software development while interfacing electronics and sensors using Arduino controllers. The topics include programming constructs, data types and declaration of variables, expressions and operators, selection statements, repetition, flowcharts for algorithm development, functions for modular programming, arrays for statistical data analysis, plotting for visualizing data, processing data files and robotics applications. Students learn how to program Arduino with a user-friendly programming language and Arduino IDE. Students also learn the basics of electronics and how Arduino responds to sensors using enlightening examples. Then, students design and build more fun prototypes based on their imagination.

## Science, Technology, Engineering, and Math (STEM) 700 – 764

**720 Graphics Communications** **ELECTIVE**

Group CP | All year — 6 days | Credit 1 | Grades 09-12

This course is designed to introduce the student to a variety of processes associated with graphics. Students will explore computer layout fundamentals, laser engraving, screen-printing and utilization of the design process. Projects will include a variety of screen printing applications, digital print media, digital photography and vinyl graphic applications.

**721 Introduction to STEM** **ELECTIVE**

Group CP | All year — 6 days | Credit 0.50 | Grades 09-12

Introduction to STEM is designed as a basic overview for careers associated with Science, Technology, Engineering and Math. Students who complete this course will gain exposure to areas necessary to design and develop the concepts needed to be successful in today's technological society. Exciting hands-on learning activities build skills for success through research, experiments and challenges that incorporate STEM concepts. Activities are designed around problem solving with an emphasis on engineering systems thinking that help solve practical problems for society.

**723 Introduction to Biotechnology** **ELECTIVE**

Group CP | All year — 6 days | Credit 1 | Grades 10-12

Introduction to Biotechnology provides a broad overview of bio-related technologies as it relates to industry and the consumer. Focusing specifically on agriculture, the course will explore the impact of a growing population on a limited food supply. Students will explore topics such as genetically modified organisms, plant science and ecology. The greenhouse will be utilized to give students an extended classroom to develop various laboratory and research activities throughout the year.

**724 Robotics NXT** **ELECTIVE**

Group CP | Semester *(first)* — 6 days | Credit 0.50 | Grades 09-12

Students will create complex solutions to challenges in the robotics field. Students in this course will use autonomous and radio controlled robots to develop solutions using a variety of sensors. The programming platform is introductory and graphic based versus scripted coding.

**725 Introduction to Automation** **ELECTIVE**

Group CP | Semester *(second)* — 6 days | Credit 0.50 | Grades 09-12

This class will discuss the mechanical and electrical processes used in modern manufacturing. A combination of computer-aided drafting and computerized numeric control will be used to engineer and digitally fabricate goods through small-scale operations.

**726 Competitive Robotics** **ELECTIVE**

Group CP | All year — 6 days | Credit 1 | Grades 11-12

This course provides a yearlong exploration in career development in manufacturing and teamwork. Students will work in teams to develop a working battle robot that will compete against area schools in the BOTS IQ fighting robot competition. Students are responsible for the overall design and fabrication of the robot, as well as developing the required documentation to accompany the robot for the competitions. Students will reinforce CADD, design, electronic and machining skills to develop and revise the 15-pound battle robot. More information can be found on www.botsiqpa.org.

**Prerequisite:** CADD 2D & 3D and Introduction to Automation

**727 Structural Engineering** **ELECTIVE**

Group CP | All year — 3 days | Credit 0.50 | Grades 09-12

Structural engineering will study the practical application of materials to solve engineering problems. A mixture of demonstrations, virtual simulation and hands-on building will allow for practical application of knowledge. This course will be a competition-style environment where students will utilize the engineering design process to construct solutions to various design challenges such as bridges and roll-cage cars. Working individually and in groups, students should be prepared to spend days working on projects and have them destroyed in the name of testing and data collection, not to mention bragging rights for the best performing projects.

**731 Electricity/Electronics** **ELECTIVE**

Group CP | Semester *(first)* — 6 days | Credit 0.50 | Grades 09-12

This course will give a basic understanding of electricity and home circuitry. Concepts utilized will be Ohm's Law, electrical safety, wiring, series and parallel circuits and how they relate to electrical devices. Students will build, test and analyze circuits commonly found in society. Skills will include schematic reading, board soldering and circuit prototyping and schematic reading.

**735 Energy & Transportation Systems** **ELECTIVE**

Group CP | Semester *(second)* — 6 days | Credit 0.50 | Grades 09-12

This course will give an introduction to the various forms of energy that power our world and the technology we use. Students will participate in laboratory and research-based applications. Forms of energy conversion and mechanical advantage will be discussed, as well as the physical and mathematical properties involved.

**736 Architecture** **ELECTIVE**

Group CP | All year — 3 days | Credit 0.50 | Grades 10-12

Architecture will teach a basic overview of architectural history and the design process. Students will be introduced to many facets of the architectural design process such as site planning, utilities, layout and aesthetics. Students will apply various math principles for developing cost estimates and working with different scales. Approximately 50 percent of the class will be devoted to Google SketchUp as the main tool used to develop 3D modeling skills to accompany classroom projects. Students are encouraged to come to class with a 2-button scroll mouse to aid in their use of SketchUp.

**738 Robotics—VEX** **ELECTIVE**

Group CP | Semester *(first)* — 6 days | Credit 0.50 | Grades 10-12

This is an advanced-style course from the NXT software. Students will learn and utilize the VEX-Robot C programming language. The building format will utilize VEX software and hardware, utilizing a variety of challenges that were similarly found in the NXT course. Use of autonomous and remote applications will be used during this course. Programming language will progressively build throughout the course.

**Prerequisite**: Robotics-NXT

**739 Advanced Manufacturing** **ELECTIVE**

Group CP | Semester *(second)* — 6 days | Credit 0.50 | Grades 10-12

Students will form a classroom-based company that will develop a product from design, production and marketing. Students will assume leadership positions within the company and research and develop prototypes to decide on a final product. Next, students will develop a production analysis and process materials through traditional machine operations as well as CNC and Graphic Operations. Finally, students will market their product through advertising and complete a cost analysis reflection costs, profits and losses.

**Prerequisite:** Introduction to Automation

**740 Commercial Graphic Design** **ELECTIVE**

Group CP | All year — 6 days | Credit 1 | Grades 11-12

This advanced graphics course is production focused. Student-driven activities will work together to design and produce products for themselves and for various projects throughout the Southmoreland School District. Students will have the opportunity to utilize and strengthen their leadership skills managing a group project.

**Prerequisite:** Graphic Communications

**751 CADD 2D Engineering** **ELECTIVE**

Group CP | Semester *(first)* — 6 days | Credit 0.50 | Grades 09-12

This course will focus on the geometric and technical illustrations used in society today. Students will utilize two-dimensional computer-aided drafting software to interpret sketches and design solutions for real world applications. Basic geometric and CADD vocabulary will be utilized throughout the course.

**752 CADD 3D Inventor** **ELECTIVE**

Group CP | Semester *(second)* — 6 days | Credit 0.50 | Grades 09-12

This course will reinforce language used from the two-dimensional course and focus on the three- dimensional modeling aspect. Students will utilize three-dimensional modeling software to interpret sketches and build prototypes for new engineering solutions in society today. Students will let their solutions come alive utilizing 3D printing technology.

**Prerequisite:** CADD 2D

**754 Graphics Prototyping** **ELECTIVE**

Group CP | All year — 6 days | Credit 1 | Grades 10-12

Using makerspace concepts, this course will allow students to progress their artistic and technical based skills in a project based learning environment. Problem solving skills, critical thinking and time management are requirements to be successful. Students will develop their own projects based on their interests and creative mindset. Students will have at their disposal all 3D printing, laser engraving and CNC machinery to bring their ideas to life.

**Prerequisite:** Completed one STEM Class earning a "C" or better

**755 Life After High School** **ELECTIVE**

Group CP | All year — 6 days | Credit 1 | Grades 12

This course will focus on the skills needed to be successful after your time at Southmoreland. Students will complete curriculum units such as resume writing and interviewing, car and home ownership, personal finance, and debt management. As a second component to the course, students will be responsible for completing 50 hours of an internship of their choice. Student provided transportation is preferred, but not required. The Internship phase will have students going to a local place of work that is within their selected career pathway. An internship portfolio and final presentation will allow students to demonstrate what they learned and apply that knowledge to their career selections upon graduation.

## Fine Arts 800-890

**801 Art I – Foundations of Studio Art** **ELECTIVE**

Group CP | All year — 6 days | Credit 1 | Grades 09-12

This is a full year, comprehensive-foundation course designed to meet the needs of those students who want to broaden their general education by increasing their understanding and appreciation of the visual arts, strengthen their artistic/self-expression skills and satisfy the prerequisite nature of this course so as to be able to take any further art course offerings during their high school career. Students will explore the world of art in this introductory course in the fundamental art elements and principles. Projects will emphasize the use of various media and techniques to create original fine art and encourage creative thinking and problem solving. Art appreciation/art history content will also be included in the curriculum for the course.

**811 Art II – Discover Refined Art Studio** **ELECTIVE**

Group CP | All year — 6 days | Credit 1 | Grades 10-12

This course expands the student's knowledge from Art I through the use of more professional art materials and processes. This course is geared toward the student who would like to enhance their art skills and gain more experience with this wider range of art materials and processes. Students will be applying their knowledge of the art elements and principles to projects emphasizing drawing, painting, ceramics, commercial art, sculpture, jewelry printmaking and crafts. Using traditional and non-traditional materials, students develop inventive experimental approaches to a variety of two-dimensional media and examine how media, ideas and composition relate. Students explore the boundaries between painting and sculpture when non-traditional materials are incorporated in collage form. Students will be expected to revisit and utilize their knowledge acquired in Art I in order to complete class projects and participate in classroom discussions.

**Prerequisite:** Art I

**814 Art Applications – Advanced Studio Arts** **ELECTIVE**

Group CP | All year — 6 days | Credit 1 | Grades 11-12

This course provides a choice for the student's specific interests and provides the opportunity for students to explore media in a much more advanced manner. The course is designed specifically for students who have a strong interest in the arts and have acquired many art skills prior to the course. During the first semester, each student will choose a two-dimensional medium in which they would like to focus. They may choose from drawing, painting, printmaking and commercial art in which they will create projects using all and any materials related to that particular medium they have chosen to work in. During the second semester, each student will choose a three-dimensional medium in which they would like to focus. They may choose from sculpture, ceramics, jewelry and crafts. The goal of this course is to give students the opportunity to improve their skills through the use of more specific materials/mediums, direct instruction and exposure to advanced methods and media.

**Prerequisite:** Art I and II

**814.3 Art Applications – Refine Your Skills** **ELECTIVE**

Group CP | All year — 3 days | Credit 0.50 | Grades 11-12

**Prerequisite:** Art I and II

**834 Senior Studio** **ELECTIVE**

Group CP | All year — 6 days | Credit 1 | Grade 12

This course is designed specifically for students who intend to continue their art education at the collegiate level. This is a full-year, one credit course developed to enhance and expand the experience of the serious-minded art student. This course will allow the art student to explore new techniques and follow creative and innovative ideas. Throughout this course, students will complete projects in two- and three-dimensional mediums in order to compile a professional art portfolio of their work to be shown to universities, employers, etc. Careers in art, portfolio composition and choosing a school to continue their education will be discussed throughout the course. In addition to fine art projects, students will also be required to maintain a sketchbook and exhibit their work in a formal fashion at the conclusion of the spring semester.

**Prerequisite:** Art I and Art II or at discretion of instructor

**865 Symphonic Band** **ELECTIVE**

Group CP | All year — 6 days | Credit 1 | Grades 09-12

The purpose of this course is to allow students the opportunity to rehearse and perform band music of all styles and periods. Rigorous coursework includes study of musical technique on an individual level, various advanced time signatures and styles and performing in a developing group setting. The finer points of music are taught through accompanying lessons and group rehearsals. School and public performances are required. Students are encouraged to take the 6-day course section.

**Prerequisite:** Prior participation in concert band or director's recommendation

**865.3 Symphonic Band** **ELECTIVE**

Group CP | All year — 3 days | Credit 0.50 | Grades 09-12

**868 Instrumental Music Lab** **ELECTIVE**

Group CP | All year — 3 days | Credit 0.50 | Grades 09-12

The course is open to students that are interested in learning to play an instrument that are **not enrolled** in another instrumental course at Southmoreland High School. The focus of the course is to introduce students to instrumental technique and music notation through individual and small group study. Students are encouraged to provide their own instrument; however, with director consent there may be a limited supply for usage at the school. Course material will include basic to intermediate theory as needed, performance skills on an instrument, aural training and overall musicianship. This course has limited seating.

**Prerequisite:** Director approval

**870 Concert Chorale** **ELECTIVE**

Group A | All year — 6 days | Credit 1 | Grades 09-12

This ensemble performs mixed choral literature from an intermediate to advanced level Students will participate in activities designed to further develop their vocal technique, musicianship and performance skills. Participation in rehearsals and performances beyond regular school hours is required.

**Prerequisite:** Participation in Scottie Singers or director's consent.

**870.3 Scottie Singers** **ELECTIVE**

Group A | All year — 3days | Credit 0.50 | Grades 09-12

This course provides opportunities for students to develop their musical potential through singing in the choral ensemble. This group performs literature from a beginning to intermediate level. Students will be trained in the proper use of the voice, posture, music reading skills and basic movement. Participation in rehearsals and performances beyond regular school hours is required.

**872.3 Beginning Music Theory** **ELECTIVE**

Group CP | Semester *(first)* — 6 days | Credit 0.50 | Grades 10-12

The purpose of this course is to learn the basics of music theory. The course is geared to the beginning and intermediate musician. The focus of this course will be beginning theory, basic musical analysis, basic aural training and music history. This class is open to all students.

**Prerequisite:** Music Department recommendation

**873.3 Advanced Music Theory** **ELECTIVE**

Group CP | Semester *(second)* — 6 days | Credit 0.50 | Grades 10-12

The purpose of this course is to expand upon theory skills gained in Beginning Theory. The course is geared toward the advancing musician with a serious interest in music and music theory. Course material will include advanced theory, basic musical analysis, aural training and some music technology. This class is open to all students that meet the prerequisite. If you plan to take AP Music Theory it is requested that you consider taking music theory in a two year sequence (Beginning Theory and Advanced Theory as a sophomore or junior is recommended).

**Prerequisite:** Completion of Beginning Music Theory with a minimum of a "B" average.

**876.3 Musical Arts 101** **ELECTIVE**

Group A | All year — 3 days | Credit 0.50 | Grades 10-12

This class is an introduction to fundamental concepts in vocal music, drama and performance. Students will learn about how the theatre functions as an art and as an industry in today's world. Students will study the 'who's who' in the business: director, choreographer, producer, set designer, lyricist, hair & make-up designer, and costume designer. This is a performance-based class. School and public performances are required.

**Prerequisite:** Recommendation of the Music Department.

**877.3 Musical Arts 102** **ELECTIVE**

Group A | All year — 3 days | Credit 0.50 | Grades 11-12

This advanced class will continue to study the fundamental concepts in vocal music, drama and performance. Students will learn about how the theatre functions as an art and as an industry in today's world. Students will study the "who's who" in the business such as: directors, choreographers, producers, set designers, lyricists, hair & make-up designers and costume designers. This is a performance-based class. School and public performances are required.

**Prerequisite:** Musical Arts 101

**879 Advanced Musical Arts** **ELECTIVE**

Group CP | All year — 6 days | Credit 1 | Grades 11-12

This advanced class will utilize the concepts acquired in Musical Arts I and II. Students will explore college level monologues and scenes. Students will complete all facets of a professional portfolio. Attention will be paid to the audition process and preparation. This is a performance based class. School and public performances are required.

**Prerequisite**: Musical Arts II

**880 Advanced Placement Music Theory** **ELECTIVE**

Group AP | All year — 6 days | Credit 1 | Grades 10-12

The purpose of this course is to expand and hone theory skills beyond those gained in Beginning Theory. Students will develop the skills and have the opportunity to take the AP Music Theory test. The course is geared toward the advancing musician with a serious interest in music and music theory. Students interested in pursuing a career in music are recommended to take this course. Course material will include advanced theory, aural training, part writing, composition, music technology and comprehensive music analysis. This class is open to upperclassmen, but it cannot be taken for more than one year.

**Prerequisite:** Recommendation of the Music Department, completion of Music Theory with a "B" or better.

**881 Advanced Musicianship** **ELECTIVE**

Group CP | All year — 6 days | Credit 1 | Grades 11-12

The purpose of this course is to enhance overall musicianship of the experienced upperclassmen instrumentalist. The course is geared toward the advancing musician with a serious interest in music or future career in the field of music. Students will need to provide their own instrument. Course material will include advanced theory, musical analysis, performance skills, music history, aural training and overall musicianship. Students will be given individual and small group lessons and performance opportunities. This class is open to upperclassmen but cannot be taken for more than two years total.

**Prerequisite:** Director's consent & completion of Advanced Music Theory with a "B" or better.

**882.3 Percussion Methods** **ELECTIVE**

Group CP | All year — 3 days | Credit 0.50 | Grades 09-12

Students will study fundamental technique on a variety of percussion instruments. The students will have the opportunity to learn through individual lessons, small group and ensemble settings. The class is open to students of all abilities and experience levels with the objective of building an ensemble and performing as an independent group, as well as, a subset of the concert band. The class is limited in size with priority given to existing percussionists and new students that hope to perform as percussionists in the Southmoreland music program.

# Health and Physical Education

**900 Physical Education 4 Life**

Group A | All year — 3 days | Credit 0.50 | Grades 10-12

As a student of physical education, you will be offered a program in grades 10 through 12 that will serve as an integral portion of your total education. The program of study for grades 10, 11, 12 will be structured to provide a range of experiences in physical education.

**930 Physical Education I/Health**

Group A | All year — 3 days | Credit 0.50 | Grades 09

The physical education experience and health course will be combined to provide students with physical activity and education in health topics such as human body structures and functions, drug effects with emphasis on alcohol and tobacco.

**948 Adaptive Physical Education**

Group A | All year — 3 days | Credit 0.50 | Grades 09-12

Adaptive physical education is a course offered for those students who have a medical excuse and are unable, for physical reasons, to engage in regular physical education. This class meets three times a week for a full year. Students will participate in a planned course and progress as their infirmity allow

*Students attending CWCTC will be required to take Wellness (10-12) to fulfill SHS physical education requirements*

# Central Westmoreland Career & Technology Center
# Technical Courses (Grades 10-12)

**972 Automotive Technology**

Students interested in the service and repair of automotive equipment will find the Auto Technology program an outstanding choice. Students will be trained to utilize all the latest diagnostic equipment in the industry. Emphasis is placed on standard shift drive and conventional and front wheel drive theory. Exploration will include a study of Automotive Electronics. Advanced students will receive instruction in the following areas: air conditioning, wheel alignment, and brakes. Students will also complete the state vehicle safety and emissions inspector certifications. Students will work toward ASE (Automotive Standards of Excellence) certification and may participate in the AYES (Automotive Youth Education Systems) internship.

**973 Construction Trades Technology**

A skilled trade's mechanic is a valuable part of any construction team. Students in this program will become skilled and knowledgeable in plumbing, carpentry, electricity, painting, wall coverings, and masonry in order to become a part of this team. A trained professional can work on new construction as well as restoration projects. Students enrolled in the Construction Trades program will also gain valuable skills in blueprint reading, tool and material handling, and building code requirements.

**974 Carpentry**

Carpentry students develop skills to become effective members of a construction team. Students will gain valuable skills that will enable them to produce residential and commercial framework, cabinetry, and other forms of woodwork. The program consists of practical application in woodworking, tool/machine handling, building layout and framing. Skills will also be developed in roof construction, exterior/interior finish work, stair construction and concrete forms. Students are also exposed to the various inspection and building code requirements.

**975 Commercial and Advertising Art**

The Commercial Art students learn to serve the communication media in today's world: books, posters, packages, displays, and signs. The program consists of practical application as well as basic theory. The practical application consists of drawing, figure construction and anatomy, cartooning, layout and graphic design, lettering and typography, mechanical overlays, and portfolio assembly. The theoretical studies include color, layout design and composition, as well as advertising art.

**976 Cosmetology**

Students enrolled in the Cosmetology Program will gain skills in haircutting techniques, shampooing, and coloring and also develop skills in manicures, pedicures and massages. Exploration is placed on hair structure, anatomy, and sanitation. A simulated salon environment is used by students to allow for practice of these skills. The goal of the program is for students to gain skill proficiency in preparation for the State Board of Cosmetology Exam.

**978 Culinary Arts**

A reputation for serving and preparing good food is essential for any restaurant, hotel or resort. The Culinary Arts students will gain the skills to be an effective part of the hospitality industry. Students will develop skills in hot/cold food preparation, baking and menu planning in the school's kitchen. Techniques in cake decorating and other confectionery items will be explored. Emphasis will be placed on safety nutrition and restaurant operation.

**979 Graphic Design**

Students looking for a future that will enable them to communicate through multiple modalities will enjoy the Graphic Design program. The program consists of an overview of the graphic technology field. Students will explore such areas as: graphic design, art, digital design, photography, pre-press production, offset printing, bindery work, silk screen production, as well as desktop publishing. Students enrolled in this program will also generate and edit photography with Adobe editing and design products.

**980 Heating and Air Conditioning**

Heating and Air Conditioning Systems control the temperature, humidity and total air quality. The need for trained technicians continues to grow in this area. Students enrolled in the program will gain valuable skills in all aspects of the HVAC industry. Entry level students will become knowledgeable in electricity beginning with OHM's Law, advancing to schematics and circuitry. Emphasis is placed on piping, soldering and brazing. Students will be able to install, diagnose and repair fossil fuel systems and heat pumps. Valuable skills will be gained in blueprint reading and customer service.

**982 Machine Trades Technology**

Metal Workers use powered machine tools to shape and form many parts which when assembled, produce many of the products that we use. The Machine Trades Technology program is a NIMS (National Institute of Metal Working Skills) certified program that consists of practical application in metal cutting, drilling, milling, turning, grinding, sawing and non-traditional electrical discharge/plunge and wire cutting machines. Students become proficient in the use of rulers, micrometers, dial calipers, optical–comparator, CMM (Coordinate Measuring Machine), hardness tester and surface finisher testers. Students will also gain skills in blueprint readings. Interested students may acquire NIMS credentials that are recognized by employers nationwide.

**983 Painting and Decorating Trades**

This program is an excellent opportunity for those interested in exterior/interior painting, interior decorating, wood finishing, drywall finishing and spray-painting. The program consists of practical application as well as a basic theory. The practical application includes applying paint to interior and exterior surfaces. Emphasis is placed on proper handling of brushes, rollers, and spray equipment. Students will be taught to hang wall coverings, borders, vinyl fabric, and faux finishing that will enhance the look of interior rooms. Students will gain skills in estimating, measuring and color fundamentals. Time is also allotted for wood finishing and refinishing.

**984 Plumbing**

Students enrolled in the plumbing program will have a strong understanding of plumbing fundamentals. Explorations will occur in a hands-on environment. Students will develop skills in sanitary piping systems, venting piping systems, and water supply systems, both in installation and repair. Plumbing students will learn to read blueprints as well as how electricity and welding are utilized in the trade. Students will gain valuable knowledge in job planning and OSHA regulations.

**985 Power Line**

Students enrolled in the Powerline program will make the connection to America's communication network. Students will gain technical skills in installation, troubleshooting and repair of telecommunication equipment of all types, including telephone networks, computer networks, and video systems. Students will gain a fundamental understanding of electricity and electronics. Students also have the opportunity to learn pole and tower climbing techniques. Particular attention will be given to the computer and how it relates to telecommunication. Interested students may acquire industry certifications in networking and fiber optics through C-Tech.

**986 Auto Collision Technology**

Students enrolled in the Automotive Collision Technology Program are exposed to the latest equipment and develop skills necessary to be an effective Auto Collision Specialist. Students will be knowledgeable in the repair and restoration of the body and frame of automobiles. Students will work with practical applications in estimating, frame straightening, metal straightening, panel replacement, mig welding, plasma cutting, plastic repairs, and painting which includes the state of the art water based technology. This program has received national certification by The National institute for Automotive Service Excellence (ASE).

**987 Electrical Occupations Technology**

Electricity plays a vital role in the way we live, work and spend our leisure time. Skilled electricians are needed to perform work in industrial, public and residential buildings. Students acquire practical application in the installation and maintenance of programmable controls, residential wiring, electrical circuits and commercial wiring. Students will also have the opportunity to learn solar and wind technology. Students will gain valuable skills when working with transformers, capacitors, resistors, inductors and conduit bending. Proficiency will be developed in blueprint reading and understanding of the National Electrical Code.

**989 Health Occupations Technology**

Health Occupations Technology is a program designed to prepare individuals for entry level employment in a variety of health occupations under the supervision of a registered nurse. Special emphasis is placed on nurse assisting, medical assisting, and home health care. The core curriculum consists of planned coursework for introduction of health careers, basic anatomy and physiology, medical terminology, legal and ethical aspects of health care and communications. This curriculum is based on research, experience and many resources. The goal of the Health Occupations Technology program is to train a worker that is skilled, knowledgeable and able to meet the needs of the industry today and well into the future.

**990 Horticulture**

The Horticulture program is an excellent opportunity for students to gain valuable skills to work in a greenhouse environment. Students will explore plant science concepts as they relate to producing crops in a greenhouse or nursery setting. Techniques for creating flower arrangements and/or corsages designed for use in weddings, parties and other social affairs will be developed. Students will work in the retail store to develop skills in marketing and retailing. In the school's outdoor lab, students become knowledgeable in landscape design, maintenance and installation. Students will become proficient in the use of power tools as well as basic hand tools used in the trade.

**991 Logistics and Materials Management**

As technology advances the way we ship and receive goods, the need for trained material handlers will continue to grow. Students enrolled in the Logistics and Warehouse Management program will gain practical application by working in the school's live distribution center. Participants will gain valuable skills in the use of the computer in maintaining an ongoing inventory, receiving and shipping goods, and updating stock cards. Students will also learn the bar coding process for scanning merchandise for inventory control. Professional communication and telephone skills are stressed throughout the program. The proper use and operation of an electric forklift, electric pallet lift and other equipment used by a materials handler will be taught in the course. Students will also be knowledgeable in postal regulations, preparing shipments and costs.

**992 Masonry**

Mason work is used in every part of our daily lives. Skilled masons construct hospitals, schools, malls and even our homes. Masons work with such materials as concrete, brick, stone and tile. The program consists of practical application of blueprint reading, and the use of masonry tools and equipment. Students will become proficient in layout design, arches, bonds, corners and ornamental patterns. Students will gain skills to complete fireplaces, glass block windows, walls and ceramic tile work. Exercises will be repeated in order to develop accuracy, neatness, speed and the necessary experience to analyze and solve problems. Students will also gain knowledge in estimating costs of projects and building code requirements.

**993 Welding**

Welding is the most common way of permanently joining metal parts. Because of its strength, welding is used to construct and repair ships, automobiles, spacecraft and many other manufactured products. Students enrolled in the program will be taught the fundamentals of welding. Students will learn to join metals by using Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), and Gas Tungsten Arc Welding (GTAW). Students will also acquire skills in Oxy Acetylene Gas Welding. Skills in metal forming, layout and cutting will also be obtained. Job safety is stressed throughout the program.

**994 Robotics Engineering**

Robotics Engineering curriculum covers electronics, integrated computer applications, technical science, and robotics technology. Intense and rigorous, the program challenges students to achieve excellence by focusing on real applications using ROBOTC programming language. Students will utilize CAD programs for electronic circuits and testing, along with virtual instrumentation for design of robotic behaviors through challenges and gaming situations. Students in this program enjoy math, science, technology and computers. Students enrolled in the program have the opportunity to join the "FIRST" robotics team.

**995 Sports Medicine & Exercise Therapy**

Sports Therapy and Exercise Science is a Sports Medicine class designed to expose the student to health care professions such as physical / occupational therapy, speech language pathology, athletic training, exercise physiology related to cardiac rehabilitation and personal training. Those interested in becoming a physician or physician assistant would also gain a wealth of knowledge from this class. Students can obtain a certification from the National Academy of Sports Medicine (NASM) as well as CPR and First Aid certification. This course provides clinical experience, medical terminology, anatomy, physiology, pathophysiology and clinical and general nutrition. The student will learn about the normal processes of the human body and what can go wrong when disease or dysfunction exist. Students will be able to watch surgeries and visit medical facilities to observe rehabilitation. Clinical skills will be taught and practiced. Students will be challenged in math and science. Writing for medical documentation purposes will be a focus throughout the curriculum. Like all of our technology programs, this is a STEM program.

**996 Protective Services**

The Protective Services program is intended to present a comprehensive public safety education to students interested in pursuing a career or volunteer service in the fire, emergency medical, law enforcement or emergency management services. The primary focus in this program is personal safety and the interrelationship between public safety agencies. Since all areas of public safety must work together, and responsibilities often overlap boundaries, the student will be expected to meet a minimum level of proficiency in all areas of the training program. The program also serves as a springboard into health-care, legal, industrial safety and public administration education careers.

**997 Computer & Information Science**

The fast-paced ever-changing computer field has opened many opportunities for individuals with a desire to work with computers. Those enrolled in the program will receive an overview of computer fundamentals. Students will have an extensive study of the software packages available on Microsoft Office such as: Word, Power Point, Access and Excel. A comparison of text editors and Dreamweaver, editor for web development, will be completed. An opportunity to explore and become knowledgeable in Visual Basic, Oracle SQL, C++, Java and Android Programming will be given to the students.

Because a different grading scale exists at (CWCTC) than at Southmoreland High School, grades from CWCTC must be converted to the scale used at Southmoreland. This conversion will permit a consistent comparison of grades for all Southmoreland students.

*For example, If a student earns a 95% (A)from CWCTC the percentage will be converted to a 93% (A) on their report card at Southmoreland.*

| CWCTC Grade Conversion Scale | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| A | | B | | C | | D | | E | |
| CWCTC | SHS | CWCTC | SHS | CWCTC | SHS | CWCTC | SHS | CWCTC | SHS |
| 100 | 100 | 92 | 89 | 85 | 79 | 77 | 69 | 69 | 59 |
| 99 | 99 | 91 | 88 | 84 | 78 | 76 | 68 | 68 | 58 |
| 98 | 97 | 90 | 86 | 83 | 76 | 75 | 66 | 67 | 57 |
| 97 | 96 | 89 | 85 | 82 | 75 | 74 | 65 | 66 | 56 |
| 96 | 94 | 88 | 83 | 81 | 74 | 73 | 64 | 65 | 55 |
| 95 | 93 | 87 | 81 | 80 | 73 | 72 | 63 | 64 | 54 |
| 94 | 92 | 86 | 80 | 79 | 71 | 71 | 61 | 63 | 53 |
| 93 | 90 | | | 78 | 70 | 70 | 60 | 62 | 52 |
| | | | | | | | | 61 | 51 |
| | | | | | | | | 60 | 50 |
| | | | | | | | | 59 | 49 |
| | | | | | | | | 58 | 48 |
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