# **NEW CASTLE JUNIOR/SENIOR HIGH SCHOOL**

# COURSE DESCRIPTION BOOK 2025-2026



NONDISCRIMINATION POLICY All activities and courses; including industrial arts, vocational-technical education, home economics, and physical education courses at the New Castle Area School District, are available to all students as required by Title XI, Title IX, and Section 504. If there are prerequisites, they are based on your ability and aptitude, not on race, color, national origin, sex, or any handicapping conditions. If you are physically or mentally handicapped, you may qualify for special services and instruction, and equipment modifications so you can successfully complete the course or participate in any activity. If you have any questions about equal educational opportunities or complaints of harassment or discrimination, contact New Castle Jr./Sr. High School, 310 Lincoln Ave., New Castle, PA 16101 (724) 656-4700.



#### **New Castle Area School District**

#### Mission Statement

The mission of the New Castle Area School District is to create a safe and respectful learning environment, fostered by collaborative community and family partnerships, where all students will develop necessary skills academically, socially and emotionally that will prepare future-ready life-long learners who will become productive citizens and resilient leaders in an ever-changing global society.

#### **Vision Statement**

The vision of the New Castle Area School District is to provide a high-quality academic program that supports the development of the "whole child." Through use of research-based best practices, state-of-the-art resources, technology, and relevant curricula designed to meet individual needs, the learning environment will enable students to maximize their academic potential while preparing them to be future-ready learners and resilient leaders in a global society.

#### **Educational Value Statement**

#### **Students**

- Students will show respect, kindness, and integrity for themselves, their peers, their academics and staff.
- Students will collaborate and communicate with peers, teachers, counselors and administrators while pursuing their academic goals, asking for support when needed.
- Students will have the opportunities to explore their talents and creativity in areas of technology, the arts, service learning, athletics, and extra curricular activities in order to shape their future.
- All students have the potential to learn and deserve the opportunity to receive a high-quality education that fosters critical thinking and social-emotional skills.

#### <u>Staff</u>

- Teachers and staff will create a caring, safe environment for all students, both in and out of the classroom.
- Teachers will provide rigorous, engaging, and personalized instruction and relevant learning opportunities while striving to meet the needs of all students.
- Staff members, administrators, and educational partners will collaborate regularly with each other to seek out and provide innovative, relevant, and effective research-based instructional strategies.

#### Administration

- Administrators will ensure that all staff members are proficient in school safety and student wellness initiatives in an effort to create a safe, caring environment where all students can succeed.
- Administrators will foster a culture of trust and respect for all stakeholders and strive to promote open communication and meaningful community partnerships.
- Administrators will strive for equity and inclusivity for all students and staff members.
- Administrators will provide support to the staff with ample opportunities for collaboration and professional development and personal growth.

#### **Parents**

- Parents will support and collaborate with teachers, staff, and administrators while playing an active role in their child's education.
- Parents will utilize the District's website, notification system, community portal, and social media platforms to stay up-to-date with school and district events.
- Parents will communicate regularly with teachers and staff to keep informed of their child's progress while providing support as needed at home.

#### Community

- The community will work closely with District personnel in establishing a good relationship between the community and the District.
- The community will assist in protecting the health, safety, and welfare of the school community.
- The community will understand that student achievement is positively impacted by the active involvement of caring adults in a supportive environment.

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# **Course Description Book 2025 - 2026**

#### Introduction

In planning an effective and realistic high school program, the New Castle Area School District prepared this booklet to help coordinate your child's educational plans. It contains information about various curricular choices, individual course selection, and important school policies. A wide variety of courses are offered to meet the abilities and interests of all students. You should study the contents carefully and consult with your counselor before you plan a specific schedule for next year.

Keep this publication throughout the school year so you may refer to it for future planning, school policies, graduation requirements, etc. The information and guidelines contained in the booklet can help you avoid difficulties in carrying out your academic program.

As you select your courses, attention should be given to course requirements, entrance prerequisites, and course sequences. You should realistically assess your capabilities and ambitions. If you have any doubts or questions concerning a course, you are encouraged to discuss those concerns with the appropriate teacher or counselor. In early spring, next year's freshman, sophomores, juniors, and seniors will have the opportunity to register for the upcoming year. Please read the course descriptions carefully and be prepared for your conference when it is scheduled. Requests for schedule changes will be difficult, if not impossible, to accommodate after the first Friday in May.

#### **Important Notice**

Parents/guardians and students are advised that course recommendations will be made by the student's current teacher for placement in English, Math, Science, Foreign Language and for Honors and AP levels of Social Studies courses. Some electives require auditions or applications for admission to be completed and approved. Please take every effort to learn the requirements of enrollment in various courses.

A listing of the courses that students are pre-registered will be sent to parents for review. Parents/guardians who would like to make any changes to the recommendations for their child may do so through a scheduled meeting with the appropriate guidance counselor where rationale for the placement will be discussed. Parents/guardians will be required to sign a waiver of the recommendation for their child to be placed in a different course. Students placed in courses through a parent waiver of recommendation will be required to remain in the course for one full semester before any change of schedule will be considered.

Any change in schedule after courses begin in the fall will result in a W posted on the transcript for the student. It is very important that students take great time to plan their course selections. Guidance counselors will meet with each student during the selection process to review credits earned and credits required. Current teachers of courses are available to explain the course requirements of any program that a student is considering for enrollment.

# **New Castle Junior High School**



### **6th Grade Course Outline**

ELA6 or Accelerated English 6
Social Studies 6
Math 6 or Accelerated Math
Science 6
Choir/Instrumental Music (Meets everyday) or WIN
• Integrated STEM 6 • Physical Education • Future Ready 6 (Library Science) • Music
Rotation 9 weeks each
ELA Enrichment (2 Semester Course)
Lunch

# 7<sup>th</sup> Grade Course Outline

7 Grade Course Odenne
ELA 7 or Accelerated English 7
World Cultures
Math 7 or Pre-Algebra
Science 7
Choir/Instrumental Music (Meets everyday) or WIN
• Integrated STEM 7 • Physical Education • Future Ready 7 (Art) • Exploratory Spanish 7
Rotation 9 weeks each
ELA Enrichment (2 Semester Course)
Lunch

# 8th Grade Course Outline

o Grade Course Odeline
ELA 8 or Accelerated English 8
U.S. History 8 or Accelerated U.S. History 8
Math 8 or Algebra I
Science 8 or Accelerated Science 8
Choir/Instrumental Music (Meets everyday/every other day) or WIN
• Integrated STEM 8 • Future Ready 8 (Google Tools) • Exploratory Spanish 8 • Automation & Robotics
Rotation 9 weeks each
ELA Enrichment (2 Semester Course)
Lunch

Individual needs will be addressed with the family and school district for possible adjustments based on individual circumstances.

# **New Castle Senior High School**



New Castle Senior High School aims to provide a program of studies which develops the skills and talents of each student. In addition to the required courses, students are encouraged to elect courses which are challenging. In completing the pre-registration form, be certain to list the credit value of each course as it appears in the course description book.

# New Castle Junior/Senior High School Graduation Credit Requirements Starting for the Class of 2026

COURSE	CREDIT
English	4
Social Studies	4
Math	4
Science	4
Health/Phys Ed./Safety	1
Financial Literacy	.5
SAT Prep/Princeton Review	.5
Electives	6
TOTAL	24

- Students must have earned 6 credits to be classified as Sophomores.
- Students must have earned 12 credits to be classified as Juniors.
- Students must have earned 18 credits to be classified as Seniors.
- Students must earn 24 credits to graduate.

**Note:** Participation in the graduation ceremony is contingent upon a student's successful completion of an instructional program appropriate to his/her needs, career readiness artifacts and industry-based work experience requirement mandated by the state and upon the student having completed the credit requirements for graduation.

#### **ACT 158 Graduation Requirements**

**NEW**: Along with satisfying the course requirements listed in Policy 217, students must also satisfy the Keystone Exam requirements established by the Pennsylvania Department of Education in Act 158 of 2018. Students are expected to take the Keystone exams that are associated with the identified NCASD Keystone Courses (Algebra I, Biology, Literature 10). If a successful score is not obtained on any of the Keystone exams, students can meet the graduation requirement through one of the other graduation pathways. More information will be forthcoming.

#### **HONORS COURSES INCLUDE:**

Honors English I

Honors English II

Honors English III

Honors World Cultures

Honors Biology

**Honors Concert Band** 

Honors Spanish V

Honors French V

Honors Italian V

Honors Pre-Calculus

**Honors Calculus** 

Intro to Engineering

Principles of Engineering

Computer Science Essentials

#### **ADVANCED PLACEMENT COURSES:**

**Advanced Placement Calculus** 

Advanced Placement Calculus II

Advanced Placement Chemistry

Advanced Placement English

Advanced Placement U.S. History

Advanced Placement Economics

Advanced Placement Biology

Advanced Placement Physics

Advanced Placement Computer Science Principles

# College In High School Partnerships Dual Enrollment Programs

In partnership with Seton Hill University, Butler County Community College (BC3), and Pennsylvania Western University, high school students can take college-level courses and earn credits that count toward both high school and college graduation. A variety of courses are offered for students to experience the challenge and excitement of higher education, save on future tuition costs, and explore potential career paths—all while gaining a competitive edge for college admissions. Transcripts with courses and credits will be provided to each student. This transcript can be used in the college admission process for exemption from freshmen college level courses. Most colleges and universities will accept credits from dual enrollment programs.

Courses vary in format to fit diverse learning styles:

- Butler County Community College (BC3) courses are taught by approved New Castle Area School District Faculty or BC3 Faculty. <u>Course List</u>
   \*Students may have to travel for some courses.
- Pennsylvania Western University offers synchronous (live) or asynchronous (self-paced) virtual
  courses. Students enrolled in virtual courses will be scheduled into a designated virtual
  exploration period during the school day. <u>Course List</u>
- Seton Hill University courses are taught by approved New Castle Area School District Faculty. See Course List Below

New Castle Course	Seton Hill Course	Credits		
AP U.S. History	HY 103 U.S. History		3	
Honors Spanish V	SP 105 Elem. Spanish L	ang. & Cult. II	3	
AP Biology	BL 150 Biology I	3	3 2nd Semester	
Biology Labs	BL 150 Bio Lab		1 (Included in 1st Semester)	
AP Chemistry	CH 108 General Chem + Lab (1st Semester)	CH 109 General Chem 2 + Lab (2nd Semester)	4	4 2nd Semester
AP English	EL 263 Topics in World I	6		
Expository Comp & Research	LA 100 Basic Comp.	3		
Honors Pre-Calculus	MA 120 Pre-Calculus	4		
AP Calculus	MA 130 Calculus w/ Ana	4		
AP Calculus II	MA 140 Calculus	4		
AP Economic	EC 101 Principles of Mic	3		

#### SCHEDULE CHANGE POLICY

All schedule changes MUST be made by the first **Friday in MAY**. To make a schedule change, the student must secure and complete a change form from the guidance office. No changes will be accepted over the phone or by email. Because of class size or class conflicts, not all requests can be honored. The School District reserves the right to place a student in a course to ensure that he/she can earn the required amount of credits for graduation.

- Required courses may not be dropped at any time.
- Requests to be scheduled into or out of a specific teacher's class will not be granted.

#### CLASS STANDING/PROMOTION CLASS STANDING

Freshman	Transfer or Promotion from Grade 8
Sophomore	Completion of 6 credits
Junior	Completion of 12 credits
Senior	Completion of 18 credits
Graduation	

Students who do not meet the minimum credit requirement for class standing will not be promoted to the next grade. Class standing will affect the computing of class rank.

## WEIGHTED GRADES/GRADE POINT AVERAGE 9TH – 12TH GRADE

The following grade point system is designed to reflect overall course difficulty and to encourage students to pursue academically challenging courses. The weighted grades will be used in computing class rank.

Regular	Honors	Advanced
Courses	Courses	Placement
A - 4.0	A - 4.5	A - 5.0
B - 3.0	B - 3.5	B - 4.0
C - 2.0	C - 2.5	C - 3.0
D – 1.0	D – 1.5	D - 2.0
F-0	F-0	F-0

#### SCHOOL COUNSELING DEPARTMENT

**Goal:** The goal of the guidance staff at New Castle Senior High School is to aid each student to acquire the self-knowledge necessary to make sound decisions regarding his/her future and to help the student with the various concerns of adolescence.

#### Guidance:

- 1. Educational-high school and post-graduate
- 2. Vocational-career and job planning
- 3. Personal-adjustment to life during adolescence; guidance is available for those seeking assistance with any type of problem.
- 4. Scheduling Advising

#### **Assessment/Testing Program:**

SAT I, II, and ACT: Students should check the Guidance Bulletin Board for dates/deadlines 7th and 8th grades - CDT and PSSA testing in Math, ELA, and Science 8 9th, 10th, and 11th grades - CDT and Keystone testing in Algebra I, Literature 10, and Biology

#### **Testing Calendar:**

PSSA - April/May Keystone Exams - December, January, and May AP Exams - May

Freshman:	Sophomores:	Juniors:	Seniors:
Career Interest Inventory	PSAT	PSAT	SAT EXAM
	AP EXAMS	AP EXAMS	AP EXAMS
		SAT EXAM	ACT EXAM
		ACT EXAM	
		ASVAB	

**College Admissions:** Colleges use various criteria for evaluating student applications for acceptance. It is important that the student knows the specific requirements established by the schools to which he/she is applying. The resources available in the Guidance Office are good sources for this information.

Some of the criteria that colleges and universities consider are the following:

- Quality point average
- Strength of curriculum
- SAT I, SAT II, ACT scores (Junior year score & Senior year score)
- Essay
- Recommendations
- Interview
- Class rank \*
- Test junior/senior year

<sup>\*</sup>Class rank is by percentile. Guidance reports if the student is in the top 10%, 20%, etc. This option was developed so that our students will not be penalized because of the competitive environment here at the New Castle Senior High School.

#### **Tutoring Program**

Based on previous standardized test scores, Classroom Diagnostic Tools Data (CDTs), and/or teacher recommendation and other assessments, students are provided with tutoring. To prepare for the Pennsylvania System of School Assessment (PSSA Exams) and/or the Pennsylvania Keystone Exams, students are provided tutoring during the school day and are scheduled from their academic prep, elective courses, or rotation courses on a periodic routine.

# Cooperative Work Experience Seniors: 1.0 credit Pass/Fail

Cooperative education gives students the chance to attend school and perform entry level tasks in businesses within our community. Students will be required to submit an application to be considered for this class and must be in good standing with attendance, discipline and academics. All applicants will be screened by administration prior to approval. Participation in this program will be on a limited basis. Employment will be verified by the supervising teacher. The teacher, guidance counselor and employer will work together to assure student success in school and on the job. Graduation is the goal for every student so no student will be considered if they are behind in graduation requirements and credits. An orientation meeting will be held in May/September/January.

#### **Additional Requirements:**

- Application for co-op must be turned in at the end of 11th grade year to be considered for approval.
- Students will have class and remain in the building 1 day per week to work on soft skills and SEL curriculum. This will be worked out by the teacher and employer.
- Assignments will be given each week and will need to be completed as per the deadline given by the instructor.
- Current work calendar/schedules must be turned in every two weeks or monthly.
- Students must turn in pay stubs bi-weekly
- On-site visits by teacher/guidance counselor/principal will happen at least once per 9 weeks (more frequent if necessary).
- At any time, students may be asked to return to school if the teacher feels they are not upholding the established expectations.

#### **Virtual Exploration:**

Sophomores, Juniors, Seniors

Credit(s): Assigned based on virtual dual enrollment course(s) completed

This class period is assigned daily to students taking virtual dual enrollment courses through partnered organizations.

## **ART**

ART ELECTIVES	GRADE 9	GRADE 10	GRADE 11	GRADE 12
	ART I	ART I	ART I	ART I
	DIGITAL PHOTO & MARKETING MEDIA	ART II	ART II	ART II
		DIGITAL PHOTO & MARKETING MEDIA	ART III	ART III
			DIGITAL PHOTO & MARKETING MEDIA	ART IV
				DIGITAL PHOTO & MARKETING MEDIA

#### **ART I**

Freshmen, Sophomores, Juniors, and Seniors

Credit: 1.0

The course covers an introduction to techniques, concepts, and mediums in association with Art History, emphasizing contemporary trends. Sketchbooks will be provided, and all mediums of art, 2D and 3D (drawing, painting, sculpture, ceramics, printmaking and design) will be explored at the beginner level.

PREREQUISITE: None

#### **ART II**

Sophomores, Junior and Seniors

Credit: 1.0

Art II builds from basics learned in Art I, diving deeper into the principles and techniques of the Fine Arts, and how to use technology to enhance artistic expression and/or to document Art made. Emphasis will be on drawing, sculpture and other mediums used to create artwork. This course may be repeated.

PREREQUISITE: Must have completed Art I

#### **ART III**

Juniors and Seniors

Credit: 1.0

A one year advanced level course in 2D and 3D processes with an emphasis on developing a greater depth of understanding of composition and application of the elements of art and principles of design. Famous artists will be researched and used as a learning tool when creating artwork. Assignments will encourage exploration of drawing and mixed media applications through still life observations, drawing from the figure, portrait study, illustrations, traditional pencil, oil, crayon, chalk pastel, and pen. Studio experiences also include ceramics, sculpture, and 3D. Each student will demonstrate progress over time by developing a body of work, organizing a portfolio, and student art exhibit. This course may be repeated.

PREREQUISITE: Must have completed Art II.

#### **ART IV**

Seniors Credit: 1.0

Art IV is a year-long course designed for students who want to continue their artistic efforts at a more advanced level and/or intend to further their education at an art school, college, or university. Students work in all areas of art with particular emphasis on drawing, painting, and 2D design. Other projects include 3D design, art history, and various strategies for looking at, discussing, and writing about their artwork and the artwork of others. Through a variety of independent projects students are encouraged to look at and respond to themselves in terms of the aesthetic world around them. Emphasis will be placed on the preparation of a portfolio geared for entry into university or art school utilizing the school's requirements for admission into their program. Students must also prepare for an exhibition in the spring.

PREREQUISITE: ART I, II, and III

#### DIGITAL PHOTOGRAPHY & MARKETING MEDIA

Freshmen, Sophomores, Juniors and Seniors

Credit: 1.0

This class is for students who would like to learn more about Digital Media and making art from the photographic process. We will edit beyond a device and learn how to use Social Media to advance our art as well as our futures in a smart, safe way.

# **ENGLISH**

ENGLISH CORE CLASSES	GRADE 9	GRADE 10	GRADE 11	GRADE 12
	ENGLISH I	ENGLISH II	ENGLISH III	ENGLISH IV
	HONORS ENGLISH I	HONORS ENGLISH II	HONORS ENGLISH III	AP ENGLISH
ELECTIVES	THEATER ARTS & STAGE DESIGN	YEARBOOK	YEARBOOK	YEARBOOK
		DIGITAL JOURNALISM	DIGITAL JOURNALISM	DIGITAL JOURNALISM
		THEATER ARTS & STAGE DESIGN	SAT PREP - V	EXPOSITORY COMP/RESEARCH
			EXPOSITORY COMP/RESEARCH	THEATER ARTS & STAGE DESIGN
			THEATER ARTS & STAGE DESIGN	

#### **ENGLISH LANGUAGE ARTS 6 (ELA 6)**

ELA 6 will focus on enhancing reading, writing, speaking, and listening. The course will enhance writing skills through various grammar lessons incorporated through all units. Students will also work to develop reading abilities in preparation for the PSSA English Language Arts test in the Spring.

Various novels will be incorporated and aligned to the state standards to enhance reading and comprehension, as well as application of literary terms.

The *Into Literature* series by the Houghton Mifflin Harcourt is the adopted program that will include and support student engagement, emphasize close reading and analysis, increase outcomes and growth, and provide differentiated instruction. Additionally, students will use materials from the *SAS Portal* including standards aligned passages to increase knowledge that is presented similarly to the PSSA English Language Arts test. Academic vocabulary terms will also be addressed to enhance literacy skills.

#### ACCELERATED ENGLISH 6

In 6th grade Accelerated English, students will take an advanced approach to English Language Arts through reading, writing, speaking, and listening, as set forth by the Pennsylvania Core ELA Standards. Students will read, respond, analyze, and interpret a variety of literature, including, but not limited to, works of fiction, nonfiction, drama, and poetry. Students will demonstrate their in-depth comprehension and analytical skills through a variety of written genres.

The *Into Literature* series by the Houghton Mifflin Harcourt is the adopted program that will include and support student engagement, emphasize close reading and analysis, increase outcomes and growth, and provide differentiated instruction. Additionally, students will use materials from *The Sadlier Common Core Progress Monitoring Workbook* and *SAS Portal* including standards aligned passages to increase knowledge that are presented similarly to the PSSA English Language Arts test. The ELA curriculum will also enhance writing skills to improve students' performance in writing coherent Narrative, Informational/Explanatory, and Argumentative essays. Enrichment suggestions will be implemented to further challenge the accelerated students to better meet their academic needs.

PREREQUISITE: Assessment data and placement test

#### **ELA ENRICHMENT 6**

ELA Enrichment 6 will further enhance students' vocabulary acquisition, strengthen grammar mechanics, improve writing composition and increase writing stamina. Lessons will be set forth in the areas of foundational skills, fluency, vocabulary, reading comprehension, language conventions, and writing.

Enrichment lessons and activities will coordinate with the pacing of the skills set forth in the approved *HMH Into Literature* program and state standards. Reading, writing, vocabulary, and grammar resources and tutorials will be the foundation of *HMH Into Literature* correlation.

#### **ENGLISH LANGUAGE ARTS 7 (ELA 7)**

ELA 7 focuses on the communication skills of reading, writing, speaking, and listening. Within the course, the students will work on grammar skills such as parts of speech, sentence parts, word agreement, modifiers, and punctuation. Students will also work to develop increased reading abilities and prepare for the Pennsylvania System of State Assessments (PSSAs).

The literature portion of this course will include a grade level study of vocabulary, fiction, nonfiction, poetry, and drama. Various novels are incorporated throughout the school year to enhance application of literacy terms, increase vocabulary skills, and enrich comprehension strategies.

The *Into Literature* series by the Houghton Mifflin Harcourt is the adopted program that will include and support student engagement, emphasize close reading and analysis, increase outcomes and growth, and provide differentiated instruction. Additionally, students will use materials from *The Sadlier Common Core Progress Monitoring Workbook* and *SAS Portal* including standards aligned passages to increase knowledge that are presented similarly to the PSSA English Language Arts test. The ELA curriculum will also enhance writing skills to improve students' performance in writing coherent Text dependent analysis responses, Narrative, Informational/Explanatory, and Argumentative essays.

#### ACCELERATED ENGLISH 7

In 7th grade Accelerated English, students will take an advanced approach to English Language Arts through reading, writing, speaking, and listening, as set forth by the Pennsylvania Core ELA Standards. Students will read, respond, analyze, and interpret a variety of literature, including, but not limited to, works of fiction, nonfiction, drama, and poetry. Students will demonstrate their in-depth comprehension and analytical skills through a variety of written genres.

The *Into Literature* series by the Houghton Mifflin Harcourt is the adopted program that will include and support student engagement, emphasize close reading and analysis, increase outcomes and growth, and provide differentiated instruction. Additionally, students will use materials from *The Sadlier Common Core Progress Monitoring Workbook* and *SAS Portal* including standards aligned passages to increase knowledge that are presented similarly to the PSSA English Language Arts test. The ELA curriculum will also enhance writing skills to improve students' performance in writing coherent Text dependent analysis responses, Narrative, Informational/Explanatory, and Argumentative essays. Enrichment opportunities will be implemented to further challenge the accelerated students to better meet their academic needs.

PREREQUISITE: Assessment data and placement test

#### ELA ENRICHMENT 7

ELA Enrichment 7 will further enhance students' vocabulary acquisition, strengthen grammar mechanics, improve writing composition and increase writing stamina. Lessons will be set forth in the areas of foundational skills, fluency, vocabulary, reading comprehension, language conventions, and writing.

Enrichment lessons and activities will coordinate with the pacing of the skills set forth in the approved *HMH Into Literature* program. Reading, writing, vocabulary, and grammar resources and tutorials will be the foundation of *HMH Into Literature* correlation.

#### **ENGLISH LANGUAGE ARTS 8 (ELA 8)**

ELA 8 focuses on applying reading, writing, listening, and speaking skills in an independent manner through meaningful interdisciplinary tasks. Students will be required to produce quality written responses by applying grammar skills that are taught in relation to composition, mainly through mini-lessons. Reading comprehension is developed by learning new strategies, building vocabulary, and using context clues. Oral communication and listening skills are also emphasized as set forth by the Pennsylvania Core ELA State Standards.

The *Into Literature* series by the Houghton Mifflin Harcourt is the adopted program that will include and support student engagement, emphasize close reading and analysis, increase outcomes and growth, and provide differentiated instruction. Students will also use materials from *The Sadlier Common Core Progress Monitoring Workbook* and *SAS Portal* including standards aligned passages to increase knowledge that are presented similarly to the PSSA English Language Arts test. The ELA curriculum will also enhance writing skills to improve student performance in writing coherent Text dependent analysis responses, Narrative, Informational/Explanatory, and Argumentative essays. Various genres of literature will be addressed through six thematic units.

Students with be informed on the topics of genocide and the Holocaust through various readings of *The Diary of Anne Frank* and *Night*, a memoir written by Holocaust victim and survivor Elie Wiesel. The topic will be addressed with finesse to encourage acceptance and foster an awareness of history to promote positive changes in the future.

#### **ACCELERATED ENGLISH 8**

The 8th grade Accelerated English course at the New Castle Junior High School is designed to prepare students to meet the challenges of subsequent honors courses in the Advanced Placement Programs offered in the later grades at the New Castle Senior High School. Accelerated English 8 focuses on developing critical and higher level thinking skills and deeper exploration of the course content. Students must possess the ability to compose analytical responses to literature by writing multiple pieces to a variety of subjects related to the literature studied in the classroom.

The *Into Literature* series by the Houghton Mifflin Harcourt is the adopted program that will include and support student engagement, emphasize close reading and analysis, increase outcomes and growth, and provide differentiated instruction. Additionally, students will use materials from the *Progress Monitoring Workbook* and *SAS Portal* including standards aligned passages to increase knowledge that are presented similarly to the PSSA English Language Arts test. The ELA curriculum will also enhance writing skills to improve students' performance in writing coherent Text dependent analysis responses, Narrative, Informational/Explanatory, and Argumentative essays. Various genres of literature will be addressed through six thematic units. Students will also be required to know the definitions of the academic vocabulary used for the PSSA English Language Arts test. Students will also explore nonfiction texts from other sources as well as complete independent projects to apply academic vocabulary terms and literary terms. The teacher will use a variety of instructional strategies to engage advanced learners.

Various writing strategies will be used to improve student performance in writing quality and coherent Narrative, Informational/Explanatory, and Argumentative Essays. Students must have the ability to control the elements of effective writing that include appropriate grammatical structure, sophisticated sentence style, and academic language.

Throughout the year, students will read one or more novels independently with various assessments to foster academic growth. Students will also analyze the texts to further demonstrate extensive analytical reading skills.

PREREQUISITE: Teacher recommendation and minimum of 95% in previous English course.

All Junior High ELA classes will consist of lessons, activities, and practice assessments from the *PSSA Performance Coach*, *English Language Arts*, *2nd Edition* workbooks are also incorporated into the curriculum. The purpose is to provide a standards-based review with essential practice to prepare students for the item types and rigor associated with high-stakes assessments. Performance Coach, ELA, is designed to give the students the confidence to succeed on state assessments.

#### **ELA ENRICHMENT 8**

ELA Enrichment 8 will further enhance students' vocabulary acquisition, strengthen grammar mechanics, improve writing composition and increase writing stamina. Lessons will be set forth in the areas of foundational skills, fluency, vocabulary, reading comprehension, language conventions, and writing.

Enrichment lessons and activities will coordinate with the pacing of the skills set forth in the approved *HMH Into Literature* program. Reading, writing, vocabulary, and grammar resources and tutorials will be the foundation of *HMH Into Literature* correlation.

#### **ENGLISH I**

Freshmen Credit: 1.0 NCAA

This is a literature-based course, which incorporates reading, writing, and speaking skills. Grammar and usage are taught in conjunction with the literature and writing. The literature course will introduce the student to various genres of literature through the use of short stories, poetry, plays, and novels.

PREREQUISITE: None

#### HONORS ENGLISH I

Freshmen Credit: 1.0 NCAA

This course provides a more comprehensive study of literature and composition for students with advanced reading and writing skills. Students will read and analyze at least five novels in addition to text materials. Students will learn the basics of literary essay writing, as well as Modern Language Association formatting. Research basics are introduced. Project based assignments are also incorporated.

PREREQUISITE: Accelerated English 8, 90%

#### **ENGLISH II**

Sophomores Credit: 1.0 NCAA

This course is a literature-based course which will build reading, writing, speaking, library skills, and literary analysis. Grammar and usage will be taught in conjunction with the literature and writing. Novels will be read and analyzed. Research is introduced in various projects. At the conclusion of this course, students will be required to take the Literature Keystone Assessment.

PREREQUISITE: None

#### **HONORS ENGLISH II**

Sophomores Credit: 1.0 NCAA

The core of this class is a survey of American literature from the seventeenth to twentieth century. This is a literature-based course for college-bound students focusing on building reading, writing, speaking, research, and literary analysis skills. Students will work independently and collaboratively to comprehend, analyze, and discuss works of fiction and non-fiction. Writing includes practice in styles of narrative, informative, and persuasive writing, as well as the implementation of correct grammar, usage and mechanics. Heavy emphasis is placed on analyzing textual evidence, as well as using this evidence to demonstrate comprehension. Research includes works cited, in-text citations, and MLA formatting. In addition to textbook material, students will read and analyze six novels.

PREREQUISITE: Teacher recommendation

#### **ENGLISH III**

Juniors Credit: 1.0 NCAA

This course covers selected literature of the major World Literature with a focus in British Literature times through the present time. Reading as well as four types of writings are stressed. Two novels will be read and analyzed.

PREREQUISITE: None

#### **HONORS ENGLISH III**

Juniors Credit: 1.0 NCAA

The core of this class is an in-depth study of British literature from Angelo-Saxon times to the present. Included is the study of approximately six novels. The four types of writing – description, narration, informational, and argumentative – will be reviewed, as well as the literary analysis.

PREREQUISITE: Teacher recommendation

#### **ENGLISH IV**

Seniors Credit: 1.0 NCAA

English IV will acquaint students with major authors and literary works representing all cultures of the world. This course concentrates on the powers of written and oral language through the process and completion of written essays and oral presentations. Research writing is interspersed throughout the course. The course also includes the study of expository and fictional text within novels.

PREREQUISITE: Teacher recommendation

#### ADVANCED PLACEMENT ENGLISH

Seniors Credit: 1.0

**NCAA - Seton Hill** 

This College in High School Course is for seniors who have demonstrated advanced understanding of literature and superior writing skills in the honors program. The core is intensive study of literary works from various world cultures, leadership development, research articles, and additional novels listed as suggested AP reading. Interpretation and advanced analysis is stressed in literary writing and speech. A research paper and panel presentations are required along with resumes and cover letters. Students are prepared to take the College Board AP exam which may qualify them for college credit.

PREREQUISITE: Honors English III, 90%

# SAT PREP (VERBAL)

Junior Rotation Credit: .25

This is a 9-week course that provides the skills necessary to meet the goals of standardized tests. SAT Prep is an excellent source of preparation for the SAT. The course provides test taking strategies specific to the Verbal component of the SAT.

\*Students in Honors English utilize Princeton Review materials for this course

## ENGLISH DEPARTMENT ELECTIVES

#### **DIGITAL JOURNALISM**

Sophomores, Juniors, and Seniors

Credit: 1.0

Students learn the essentials of news reporting, ethics, and interviewing while writing various types of newspaper stories. Students will also learn basic editing, publishing and layout and design skills. The class is ultimately involved in the publication of the school newspaper entitled "The Eye of the Hurricane." This course requires additional activities & events to be attended outside of school hours.

PREREQUISITE: Teacher Recommendation, 85% or higher in current English class, may take Digital Journalism if taken before.

#### **EXPOSITORY COMPOSITION & RESEARCH**

Juniors and Seniors

Credit: .5
Seton Hill

This course meets every other day and is considered a College in High School course. Composition teaches students the basic writing skills needed for college success. Students will compose and revise personal narratives and expository and argumentative essays focusing on paragraph construction and organization. Research provides the informational foundation necessary for the production of collegiate level research writing. Students participate in the research of materials online, the organization of research, and the formal writing of papers. Students will learn and apply MLA (Modern Language Association) and APA (American Psychological Association) style citation formats as they write research papers. Students write a narrative, informative, compare and contrast, and argumentative papers, while maintaining course work on grammar vocabulary in our learning management system. The ability to self-pace and complete independent work is important.

PREREQUISITE: Honors English II or III, 90%

#### THEATER ARTS AND STAGE DESIGN

Freshmen, Sophomores, Juniors, and Seniors

Credit: 1

Students will learn about the evolution of theater and the way it has shaped our world. Not only will students comprehend and analyze its significance, but they will also study and interpret the methods performers use in order to make a show meaningful to an audience. Students will have the opportunity to view recordings of Broadway shows, listen to Broadway cast albums, study the techniques of famous stage and screen stars, act out monologues and scenes, and even direct each other's performances. Students will also learn all facets of stage lighting, sound, and staging. This course will enable the student to master the task of using the equipment and also to design their own plots for stage productions and other media programs in the schools. Students will also be able to work all the equipment in the auditorium for any school or community function. Part of the evaluation for this course is to participate in some aspect of working a school performance or a community function using the equipment in the auditorium. Experience in this course can lead to a career in multimedia production for stage, radio, and television. Students will be required to attend the high school spring musical, and write an in-depth review.

#### **YEARBOOK**

Sophomores, Juniors, and Seniors

Credit: 1.0

The yearbook staff will consist of students selected at the discretion of the advisors and building principal. Applications and writing samples as well as the recommendation of the current English teacher are necessary. Students are required to raise \$500.00 in business ads and fundraisers. Applicants must also be "tech savvy" since students are required to create yearbook pages on a computer website. This course requires additional activities & events to be attended outside of school hours.

PREREQUISITE: Teacher Recommendation

# FAMILY AND CONSUMER SCIENCE

#### AN INTRODUCTION TO CHILD DEVELOPMENT

Freshmen, Sophomores, Juniors, and Seniors

Credit: .5

The content of this elective includes the importance of early childhood education for brain development, developmental theory, effective parenting, and issues surrounding teen pregnancy like child abuse. The physical, intellectual, emotional, and social development of children from birth to age five will be explored. Students will also cover real-life issues affecting parents and caregivers. When possible, students will be visiting elementary schools to learn in a real situation.

PREREQUISITE: None

#### **TODAY'S FOOD**

Freshmen, Sophomores, Juniors, and Seniors

Credit: .5

Today's Food offers a hands-on approach to developing the skills in food preparation techniques through a variety of cooperative and independent learning activities. Students learn how to read a recipe, examine the functions of different ingredients, and apply the principles of food science, with an emphasis on food safety and sanitation. This course includes meal management and preparation, as well as the important relationship of diet to health, including factors relating to the necessity of breakfast, snack foods, and foods for celebrations. Current consumer trends are evaluated and paired with food selections to enable students to make wise choices throughout their lifetime. Science, math, and communication skills are reinforced throughout this course experience. \*Every other year.

PREREQUISITE: None

#### **TODAY'S FOOD 2**

Freshmen, Sophomores, Juniors, and Seniors

Credit: .5

This semester course will cover the Pennsylvania Academic Standards for Family and Consumer Science under Food Science and Nutrition. This course will provide and investigation of the positive impact good nutritional practices have on physical and mental health, disease prevention, longevity, and optimal athletic performance. A scientific examination of the nutrients provided by different food groups will expose the necessity of eating a variety of fresh, nutrient-dense foods that come from nature, not factories. Students will develop a new perspective regarding the influence consumers, culture, and the food industry, government, and technology have on our food supply and food choices. Students will have the opportunity to prepare and sample a variety of healthful fresh foods in a lab portion of this course. \*Offered every other year.

PREREQUISITE: None



Sophomore Rotation Credit: .5

This required course focuses on building the foundational financial literacy skills students need to be successful in the real world. Through interactive online modules using the Everfi and Next Gen Personal Finance digital curricula, students will engage in real-life situations focused on goal setting, budgeting, savings and checking account management, credit and career options, and insurance. The development and application of these skills throughout the course will serve to empower students with the critical skills needed to ensure their financial capability and success in the real world.

#### **FUTURE EDUCATORS**

Sophomores Credit: .5

In this course, students will develop leadership, communication skills, and focus on confidentiality and professionalism in the workplace. Students will foster community engagement, and develop self-awareness through a series of group projects/events and reflective activities. Students will be given hands-on classroom experience through activities, tutoring, and partnerships with students and teachers at our Elementary and Intermediate Schools. Students will attend training, workshops at our local Intermediate Unit to learn about current trends in education under the guidance of experienced educators in the field. Students will also visit Education Departments at local Universities, to experience what it will be like to be enrolled as a future educator in a University setting and what to expect when they graduate and enter the workforce.

PREREQUISITE: Future Educator Club Member

# **FOREIGN LANGUAGE**

FOREIGN LANGUAGE	GRADE 9	GRADE 10	GRADE 11	GRADE 12
	ITALIAN I	ITALIAN I	ITALIAN I	ITALIAN I
		ITALIAN II	ITALIAN II	ITALIAN II
			ITALIAN III	ITALIAN III
			HONORS ITALIAN IV	HONORS ITALIAN IV
	SPANISH I	SPANISH I	SPANISH I	SPANISH I
		SPANISH II	SPANISH II	SPANISH II
			SPANISH III	SPANISH III
			HONORS SPANISH IV	HONORS SPANISH IV
			HONORS SPANISH V	HONORS SPANISH V

## \*See below for French Offerings

#### **ITALIAN I**

Freshmen, Sophomores, Juniors, and Seniors

Credit: 1.0 **NCAA** 

In Level I, the emphasis of the program is an oral-aural communication progressing onto rudiments of reading and writing.

#### **ITALIAN II**

Sophomores, Juniors, and Seniors Credit: 1.0 **NCAA** 

The second year introduces a review of grammatical elements necessary for sentence composition while continuing to stress oral-aural communication. Short readings depicting cultural aspects or materials of the languages studied are offered.

PREREQUISITE: Italian I, grade of 70% or higher

#### **ITALIAN III**

Juniors and Seniors Credit: 1.0

**NCAA** 

There will be continued emphasis on teaching the four basic skills and also incorporating the teaching of advanced grammar by means of oral and written work. Cultural aspects will be introduced through selected readings from past and contemporary literature.

PREREQUISITE: Italian II, grade of 70% or higher

#### **HONORS ITALIAN IV**

Seniors Credit: 1.0 NCAA

This year's long course will expand to the fullest, the four basic skills of language learning: listening, speaking, reading, and writing to meet the needs and talents of the individual student as well as the class as a whole. To meet this end, the instruction will include learning grammar, culture, and studying literary pieces. The spoken word will be the main objective of this course.

PREREQUISITE: Italian III, grade of 70% or higher

#### **EXPLORATORY SPANISH 7**

This course provides a foundational introduction to the Spanish language, focusing on basic conversational skills and key vocabulary.

#### **EXPLORATORY SPANISH 8**

This course provides a foundational introduction to the Spanish language. Students will build upon the basic conversational skills and key vocabulary learned in Exploratory Spanish 7.

#### **SPANISH I**

Freshmen, Sophomores, Juniors, and Seniors

Credit: 1.0 NCAA

In Level I, the emphasis of the program is an oral-aural communication progressing onto the rudiments of reading and writing.

#### **SPANISH II**

Honors Freshmen, Sophomores, Juniors, and Seniors Credit: 1.0

NCAA

The second year introduces a review of grammatical elements necessary for sentence composition while continuing to stress oral-aural communication. Short readings depicting cultural aspects or materials of the language studied are offered.

PREREQUISITE: Spanish I, grade of 70% or higher

#### **SPANISH III**

Honors Sophomores, Juniors, and Seniors

Credit: 1.0 NCAA

There will be continued emphasis on teaching the four basic skills and also incorporating the teaching of advanced grammar by means of oral and written work. Cultural aspects will be introduced through selected readings from past and contemporary literature.

PREREQUISITE: Spanish II, grade of 70% or higher

#### **HONORS SPANISH IV**

Juniors, Seniors Credit: 1.0 NCAA

This year-long course will expand to the fullest, the four basic skills of language learning: listening, speaking, reading, and writing, to meet the needs and talents of the individual student as well as the class as a whole. To meet this end, the instruction will include learning grammar and culture, and reading various articles and literary pieces. The spoken word will be the main objective of this course.

PREREQUISITE: Spanish III, grade of 70% or higher

#### **HONORS SPANISH V**

Juniors, Seniors Credit: 1.0

**NCAA - Seton Hill** 

This course is designed for students who have an excellent understanding of the Spanish language. The students will complete various reading, writing, listening and speaking activities in order to take their language skills to that of the collegiate level. An emphasis will be on oral communication. To develop these four essential skills, the instruction will include learning grammar, discussing culture, and studying various articles and literary pieces.

PREREQUISITE: Honors Spanish IV, grade of 80% or higher

#### FRENCH IV, V

Sophomores, Juniors, and Seniors Credit: 1.0 per course NCAA - Seton Hill

\*All French Classes may be offered on our Virtual Platform

**Honors French IV** will expand to the fullest, the four basic skills of language learning: listening, speaking, reading and writing, to meet the needs and talents of the individual student as well as the class as a whole. To meet this end, the instruction will include learning grammar and culture, and reading articles and literature. The spoken word will be the main objective of this course.

PREREQUISITE: French III, grade of 70% or higher

**Honors French V** is designed for students who have an excellent understanding of the French language. The students will complete various reading, writing, listening, and speaking activities in order to take their language skills to that of the collegiate level. An emphasis will be on oral communication. To develop these four essential skills, the instruction will include learning grammar, discussing culture, and studying various articles and literary pieces. \*Possible college credit available.

PREREQUISITE: Honors French IV, grade of 80% or higher

# HEALTH, PHYSICAL ED., SAFETY ED.

HEALTH	GRADE 9	GRADE 10	GRADE 11	GRADE 12
	PHYS ED 9	PHYS ED 10		
	HEALTH ED	SAFETY ED		

# 6<sup>th</sup> & 7<sup>th</sup> GRADE PHYSICAL EDUCATION

This course is required for each 6<sup>th</sup> & 7<sup>th</sup> grade student and is offered as part of a nine week rotation. Grading will be based on effort, participation and progress toward personal physical activity and fitness goals. Grades will be issued at the end of the nine week period. All Physical Education classes will operate under the PE4life approach which combines today's best practices in physical education to inspire and educate all students about the vital importance of lifetime physical activity and fitness. Both grade levels will incorporate cardiovascular fitness, muscular and strength endurance, exercise, wellness, nutrition, and a wide variety of lifetime sports and fitness activities to promote an active and healthy lifestyle.

### PHYSICAL EDUCATION 9

Freshmen Rotation Credit: .5

All Physical Education classes will operate under the PE4life approach which combines today's best practices in physical education to inspire and educate all students about the vital importance of lifetime physical activity and fitness. All grade levels will incorporate cardiovascular fitness, muscular and strength endurance, exercise, wellness, and nutrition, and a wide variety of lifetime sports and fitness activities to promote an active and healthy lifestyle. Technology will be incorporated to assess students on their personal progress toward fitness and activity goals.

PREREQUISITE: None

# PHYSICAL EDUCATION 10



Sophomore Rotation Credit: .25

All Physical Education classes will operate under the PE4life approach which combines today's best practices in physical education to inspire and educate all students about the vital importance of lifetime physical activity and fitness. All grade levels will incorporate cardiovascular fitness, muscular and strength endurance, exercise, wellness, and nutrition, and a wide variety of lifetime sports and fitness activities to promote an active and healthy lifestyle. Technology will be incorporated to assess students on their personal progress toward fitness and activity goals.

PREREQUISITE: None

# SAFETY EDUCATION

Sophomore Rotation Credit: .25

Students will engage in activities that enhance techniques needed to drive more efficiently and also prepare them to develop attitudes that will lead to safe and courteous driving. The range of content will include highway transportation system responsibilities, Pennsylvania traffic laws, basic vehicle controls and operations, perceptual skills development, decision-making/risk reduction, handling complex driving environments, emergency situations, defensive driving processes, influences on driver performance, and consumer considerations. This course will satisfy the theory phase (30 hours of instruction) required for behind-the-wheel instruction. BTW instruction (6 hours) is available outside of school.

Freshmen Rotation Credit: .5

High school is a time of many changes and decisions. This course is designed to help students learn about their changing bodies, to help them sort out emotions and personal values, to aid them in maintaining optimum health as a lifelong process, and to show students how to take responsibility for making healthy decisions. Instruction will include units within the physical, mental, social and emotional dimensions of health including stress management, nutrition, drugs and alcohol, infectious diseases, lifestyle diseases, healthy relationships, and self-esteem.

# **MATHEMATICS**

MATH	GRADE 9	GRADE 10	GRADE 11	GRADE 12
	ALGEBRA I A	ALGEBRA I B	ALGEBRA II	BUSINESS MATH
	ALGEBRA I	ALGEBRA II	GEOMETRY	STATISTICS
	HONORS GEOMETRY	INTEGRATED MATH	STATISTICS	HONORS PRE-CALCULUS
		HONORS ALGEBRA II	PRE-CALCULUS	PRE-CALCULUS
			HONORS PRE-CALCULUS	HONORS CALCULUS
			AP CALCULUS	AP CALCULUS
			HONORS PRE-CALCULUS	AP CALCULUS II
			INTEGRATED MATH	HONORS CALCULUS
			SAT PREP - M	INTEGRATED MATH
ELECTIVES		GENERAL	GENERAL	GENERAL

ELECTIVES	GENERAL	GENERAL	GENERAL
	ACCOUNTING	ACCOUNTING	ACCOUNTING
			BUSINESS MATH

#### MATH 6

Introductions and areas addressed during the class period are properly aligned to the Pennsylvania Grade 6 mathematics standards, anchors, and eligible content material for the PSSA (Pennsylvania System of School Assessment) exam. Emphasis is placed on the following topics: ratios and proportional relations, the number system, expressions and equations, and inequalities, geometry (area, volume and surface area), statistical measures and statistical displays. Technology, including the use of computers and calculators, will be used as tools of instruction. Interactive computer resources will be used to ensure student comprehension and preparation for the PSSA assessment as well as future growth.

#### **ACCELERATED MATH 6**

Introductions and areas addressed during the class period are properly aligned to the Pennsylvania Grade 6 mathematics standards, anchors, and eligible content material for the PSSA (Pennsylvania System of School Assessment) exam. Emphasis is placed on the following topics: numbers and operations, algebraic concepts, geometry, and measurement, data and probability. Accelerated Math 6 moves at a faster pace and includes more rigorous supplemental material. Technology, including the use of computers and calculators, will be used as tools of instruction. Interactive computer resources will be used to ensure student comprehension and preparation for the PSSA assessment as well as future growth.

#### PRE-ALGEBRA 7

The purpose of this course is to provide the foundation for Algebra I and to develop concepts and processes needed to solve and apply mathematical problems. The Pre-Algebra course emphasizes the language of Algebra I and solving problems using various approaches including algebra, number theory, fractions, ratios, proportions, equations, inequalities, statistics, probability, exponents, and graphing. Calculators and computers will be integrated as tools of instruction throughout the course. Students taking this course should be highly motivated, goal-oriented, and willing to devote an appropriate amount of time to mathematics. All 7th grade material will be completed prior to the PSSA test assuring students for success. After PSSA, students will focus on 8th grade standards.

PREREQUISITE: Assessment Data and Comprehensive Entry Exam

#### **MATH 7**

Instruction and areas addressed during the class period are properly aligned to the Pennsylvania Grade 7 mathematics standards, anchors, and eligible content material for the PSSA (Pennsylvania System of School Assessment) exam. Emphasis is placed on the following topics: ratios and proportional relationships, operations with rational numbers, expressions, equations and inequalities, geometry, applications of percent, and probability and populations. Technology, including the use of computers and calculators, will be used as tools of instruction. PSSA assessment readiness workbooks, along with multiple interactive computer resources, will be used to ensure student comprehension and preparation for future growth.

#### MATH 8

Instruction and areas addressed during the class period are properly aligned to the Pennsylvania Grade 8 mathematics standards, anchors, and eligible content material for the PSSA (Pennsylvania System of School Assessment) exam. Content discussed throughout the year include: scientific notation, exponents, and irrational numbers, rigid motions and congruent figures, dilations and similar figures, linear equations in one and two variables, systems of linear equations, functions and bivariate data. Technology, including the use of computers and calculators, will be used as tools of instruction. PSSA assessment readiness workbooks, along with multiple interactive computer resources, will be used to ensure student comprehension and preparation for future growth.

#### **ALGEBRA I A**

Freshmen Credit: 1.0

The purpose of this course is to build upon the algebra concepts learned in Math 8 and to develop concepts related to Module 1 of the Algebra 1 Keystone Exam. The Algebra I A course emphasis is on operations and linear equations and inequalities. Operation topics include representing numbers in equivalent forms, applying number theory concepts, using exponents and roots and estimating. In addition, students will be able to write, solve, and graph linear equations, inequalities, and systems of equations and inequalities by using a variety of methods.

PREREQUISITE: None

#### **ALGEBRA I B**

Sophomores Credit: 1.0 NCAA

The purpose of this course is to focus on Module 2 and reiterate algebra concepts learned in Math 8 and Algebra I A. The Algebra I B course will be taken by all students that have completed Math 8 and Algebra I A and have yet to pass the Algebra 1 Keystone Exam. Topics including linear functions, data distribution, operations, linear equations and inequalities, that have been previously discussed in Math 8 and Algebra I A will be remediated and expanded upon. In addition to the above mentioned topics simplifying polynomials and factoring will also be taught.

PREREQUISITE: Math 8 and Algebra I A and Assessment data

#### **INTEGRATED MATH**

Sophomore, Juniors, Seniors

Credit: 1.0

Integrated Mathematics is a course that combines key topics from Algebra, Geometry, and Statistics. It covers the basics of Algebra I and II, along with essential Geometry and Statistics. Students will learn algebraic expressions, equations, inequalities, and functions (linear, quadratic, and exponential), study geometric concepts like points, lines, angles, transformations, properties of shapes, basic trig functions and explore statistics, including data collection, averages, probability, and basic data analysis. The course focuses on problem-solving, critical thinking, and real-life application.

PREREQUISITE: Algebra I or equivalent

#### **ALGEBRA I**

8th Grade and Freshmen Credit: 1.0 NCAA

This course is organized around families of functions, with special emphasis on linear and quadratic functions. During the course students will learn to represent families of functions as verbal descriptions, equations, tables, and graphs. In addition to its algebra content, the course will include lessons on probability, data analysis, and geometry.

PREREQUISITE: 7th grade-Assessment Data and Comprehensive Entry Exam; 8th grade-Assessment Data or Pre-Algebra grade of 85% or higher; 9th grade-Assessment Data and an averaged math grade of 80% or higher.

#### HONORS ALGEBRA II

Freshmen and Sophomores

Credit: 1.0 NCAA

This course is organized around families of functions, including linear, quadratic, exponential, logarithmic, radical, and rational functions. During the course students will learn to represent families of functions as verbal descriptions, equations, tables, graphs, and matrices. In addition to its algebra content, the course will include lessons on discrete math, data analysis, probability. As this course is an honors level course it will move at a fast pace and students will be challenged accordingly.

PREREQUISITE: Honors Geometry, grade of 80% or higher

#### **ALGEBRA II**

Freshman, Sophomores, and Juniors

Credit: 1.0 NCAA

This course is organized around families of functions, including linear, quadratic, exponential, logarithmic, radical, and rational functions. During the course students will learn to represent families of functions as verbal descriptions, equations, tables, and graphs. In addition to its algebra content, the course will include lessons on probability, data analysis.

PREREQUISITE: Algebra I or Algebra I B

#### HONORS GEOMETRY

Freshmen Credit: 1.0 NCAA

This course develops reasoning and problem solving skills in topics such as congruence and similarity, and applies properties of lines, triangles, quadrilaterals, and circles. In addition to its geometry content, the course will include lessons on probability, data analysis, and algebra. As this course is an honors level course it will move at a fast pace, and students will be challenged accordingly.

PREREQUISITE: Algebra I in 8th grade with a grade of 80% or higher

#### **GEOMETRY**

Sophomores and Juniors

Credit: 1.0 NCAA

This course develops reasoning and problem solving skills in topics such as congruence and similarity, and applies properties of lines, triangles, quadrilaterals, and circles. In addition to its geometry content, the course will include lessons on probability, data analysis, and algebra.

PREREQUISITE: Algebra II

#### PRE-CALCULUS

Sophomores, Juniors, Seniors Credit: 1.0 NCAA

The primary goal of this course is to refine, develop, and apply skills learned in the study of previous math courses. This course will serve as a foundation for further study in calculus. During this course students will review functions with an emphasis on linear, quadratic, polynomial, radical, rational, trigonometric and logarithmic functions. This course will also study conic sections, analytical trigonometry, polar coordinates, and parametric-equations. The student will use the TI-83 graphing calculator for much of their problem solving, emphasizing real-world applications.

PREREQUISITE: Algebra II, grade of 70% or higher

#### **HONORS PRE-CALCULUS**

Juniors and Seniors Credit: 1.0

**NCAA - Seton Hill** 

The primary goal of this course is to develop, refine, and apply skills learned in the study of previous math courses. This course will serve as a foundation for further study in calculus. During this course students will review functions with an emphasis on linear, quadratic, polynomial, radical, trigonometric and logarithmic functions. The students will use the TI-83+ graphing calculators for much of their problem solving, emphasizing real-world applications. Every student is encouraged to take the AP Pre-Calculus Exam. College credits are available from Seton Hill University. As this course is an honors level course, it will move at a fast pace and students will be challenged accordingly.

PREREQUISITE: Honors Algebra II, grade of 80% or higher

#### **HONORS PRE-CALCULUS**

Juniors and Sophomores

Credit: 1.0 NCAA

The primary goal of this course is to refine, develop, and apply skills learned in the study of previous math courses. This course will serve as a foundation for further study in calculus. During this course students will review functions with an emphasis on linear, quadratic, polynomial, radical, rational, trigonometric and logarithmic functions. This course will also study conic sections, analytical trigonometry, polar coordinates, and parametric-equations. The student will use the TI-83 graphing calculator for much of their problem solving, emphasizing real-world applications. As this course is an honors level course, it will move at a fast pace and students will be challenged accordingly.

PREREQUISITE: Honors Algebra II, grade of 80% or higher

#### HONORS CALCULUS

Seniors Credit: 1.0 NCAA

Honors Calculus involves the continued study of functions, rates, and accumulation. This course is appropriate for students who have completed Algebra 1, Algebra 2, Geometry, and Pre-calculus and do not want to take AP Calculus. In particular, students must be familiar with the properties of functions, the algebra of functions, the graphs of functions and trigonometric functions. Students must also understand the language of various functions (e.g., domain and range, odd and even, periodic, symmetry, zeros, intercepts). Honors Calculus is not as rigorous as AP Calculus, but does count as an honors credit..

PREREQUISITE: Pre-Calc, grade of 80% or better; Honors Pre-Calc, grade of 70% or better; Teacher recommendation

#### ADVANCED PLACEMENT CALCULUS AB

Juniors and Seniors Credit: 1.0

**NCAA - Seton Hill** 

The AP Calculus is a College in High School course designed to present an enriched course in early transcendental, differential and integral calculus. Included in the course are studies on limits, continuity, differentiation, differentials, Mean value Theorem, applications of derivatives, integration, hyperbolic differentiation, the definite integral, and applications of integration.

PREREQUISITE: Teacher recommendation

#### ADVANCED PLACEMENT CALCULUS II

Seniors Credit:1.0 NCAA - Seton Hill

Calculus II (SMA140) builds on the foundational knowledge of Calculus I (SMA 130). Students who take Calculus II have the opportunity to receive four college credits from Seton Hill University.

Calculus II is often referred to as Integral Calculus because of the focus on the techniques of integration. Calculus II includes several advanced mathematical concepts such as Integration Techniques, Applications of Integration, Sequences and Series, Differential Equations, Parametric and Polar Equations. These topics build on the foundational knowledge of derivatives and basic integration. Calculus II is known for its challenging content and provides essential tools for advanced studies in mathematics, science, and engineering.

PREREQUISITE: Teacher recommendation

#### **STATISTICS**

Juniors and Seniors

Credit: 1.0

Elementary Statistics is a beginning statistics course for students with a basic Algebra I background. It will follow a non-theoretical approach without formal proofs, explaining concepts intuitively and supporting them with many examples. The applications span a broad range of topics including: business, sports, health, architecture, education, entertainment, political science, psychology, history, and many more.

PREREQUISITE: Algebra II

#### **BUSINESS MATH**

Seniors Credit: 1.0

The course will cover personal money records, special consumer purchasing problems and wage problems as they relate to family and business organizations. It will cover problems relating to commission income, personal finance, savings, no investments, and taxes in relation to family and business organizations.

PREREQUISITE: None

#### GENERAL ACCOUNTING

Sophomores, Juniors, and Seniors

Credit: 1.0

General Accounting will give the student a thorough background in the basic accounting procedures used to operate a business. The concepts and procedures presented will serve as a foundation for employment in careers in business and provide the skills needed for college accounting courses. Students will study the theory and logic of the accounting cycle to understand and interpret financial data. The principles and methods of analyzing transactions, recording transactions, posting, and preparing financial statements are an integral part of the course. The focus of this course is on service and merchandising businesses organized as sole proprietorships and partnerships. All future business majors as well as any college bound students should take this course.

PREREQUISITE: None



Junior Rotation Credit: .25

This is a 9-week course that provides the skills necessary to meet the goals of standardized tests. SAT Prep is an excellent source of preparation for the SAT. The course provides test taking strategies specific to the Math component SAT.

\*Students in Honors English utilize Princeton Review materials for this course

# **MUSIC**

MUSIC	GRADE 9	GRADE 10	GRADE 11	GRADE 12
	HURRICANE BAND	HURRICANE BAND	HURRICANE BAND	HURRICANE BAND
	GUITAR	GUITAR	GUITAR	GUITAR
	CANES CHOIR	CANES CHOIR	CANES CHOIR	CANES CHOIR
	STAGE LIGHTING AND SET DESIGN			
			ROCK, POP & THE SILVER SCREEN	HONORS HURRICANE BAND

#### 6th GRADE GENERAL MUSIC

This is a required class for all 6th grade students. It will meet every day for a 9 week period (45 days). Students will listen to and discuss various aspects of music, what culture it originated from, and its historical significance.

#### 6<sup>th</sup> GRADE CHOIR

This class will meet every day all year. This is considered a performing ensemble and will have at least 2 performances throughout the year. The students will be taught correct vocal technique, varied styles of vocal music, and foundational music literacy. Students will also practice self-discipline and collaboration during every rehearsal.

## 7th & 8th GRADE CHOIR

7<sup>th</sup> & 8<sup>th</sup> Grade Choir is/are a performing group(s). **They are required to perform up to three concerts throughout the year.** The objective of the group is to broaden the knowledge and skills of the students in the area of performance. There is a limited number of students. Attendance at all scheduled performances and after school activities is mandatory. Students must maintain an 80% to continue in the Choral Program.

## 6<sup>th</sup> GRADE BAND

This class will meet every day all year. This is considered a performing ensemble and will have 2 performances through the school year. The students will continue to build upon the foundations of playing a band instrument. The students will also have pull-out individual or small group lessons throughout the school year to have more individualized instruction and progress more on their instrument. The students will be taught correct technique, varied styles of concert band music, and foundational music literacy. Students will also practice self-discipline and collaboration during every rehearsal.

# 7<sup>th</sup> & 8<sup>th</sup> GRADE BAND

7<sup>h</sup> & 8<sup>h</sup> Grade Band is/are a performing group(s) that meets every day. The students are recommended by their elementary instrumental music teacher. All others must audition for the band director before gaining entrance. This group is required to perform twice a year, Winter and Spring. 8<sup>TH</sup> grade band members are required to participate in marching band. (Band Camp in August, all football games, festivals & parades)

# 6th, 7th, & 8th GRADE W.I.N.

(This is not a Music Course)

Students not participating in a Band/Choir will be scheduled for W.I.N. "What I Need" is a course designed to meet individual students' needs. Students will be provided enrichment opportunities, as well as interventions during their W.I.N. Period.

#### INSTRUMENTAL MUSIC MARCHING BAND REQUIREMENT

The New Castle Marching Band consists of all instrumental music students in grades 8 through 12 and students in grades 10 through 12 at the Lawrence County Career & Technical Center. Since band is a full year course, a band member must participate in Ninth Grade Band, Hurricane Band, and Concert Band unless a schedule problem emerges. A schedule problem must be discussed with the director before the scheduling process begins at the High School. No student will be permitted to schedule band without participating in Marching Band with the following exceptions: Varsity Football Players, Cheerleaders, Candy Canes, Flag line or Majorette. The Marching Band performs at all football games, parades, and various special events. In order to schedule an instrumental music course, the student must participate in Band Camp which meets prior to the start of school, otherwise a schedule change must occur. The grade for Marching Band is incorporated into the student's concert band grade.

#### **HURRICANE BAND**

Freshmen, Sophomores, Juniors, and Seniors

Credit: 1.0

This course is to broaden the knowledge and experience of performing good quality music through the development of good practice, performance, and attendance at all times. It will also continue to develop performance skills such as posture, tone, intonation, breathing, embouchure, fingering, rhythm, articulation, and scales. These skills will be used in the performance of a wide variety of music. Attendance at all scheduled performances after school activities is mandatory. If the student does not perform in the concert, they will be given a final grade of 0%.

PREREQUISITE: An audition by the high school band director for placement or permission to enroll.

#### HONORS HURRICANE BAND

Seniors Credit: 1.0

This course is to enable students to stay in Concert Band for four years. This course will help seniors who cannot take other weighted classes due to band. All Honors Concert Band students must participate in all required activities including Marching Band. Academic assignments will also be required. A written paper is required for the first and third nine weeks. A written test will be given for the second and fourth nine weeks.

This course is to broaden the knowledge and experience of performing good quality music through the development of good practice, performance, and attendance at all times. It will also continue to develop performance skills such as posture, tone, intonation, breathing, embouchure, fingering, rhythm, articulation, and scales. These skills will be used in the performance of a wide variety of music. Attendance at all scheduled performances and after school activities is mandatory. If the student does not perform in the concert, they will be given a final exam grade of 0%. A final project will be required for each student enrolled in the Honors Concert Band.

PREREQUISITE: Three prior years of band participation.

#### **GUITAR (Full Year)**

Freshmen, Sophomores, Juniors, and Seniors

Credit: 1.0

This course is for students who wish to know how to play the guitar. Students will receive a basic knowledge of how to read music and charts. During this course, students will also learn how to play chords, rhythms, and melodies. Once they are proficient at the basic fundamentals, they will build their working musical vocabulary and be able to play a collection of songs. They will then expand their guitar skills with barre chords, TAB, music literacy, etc. A limited number of guitars are available. We highly suggest students eventually own their own guitars as concepts become more advanced and practice at home may be necessary.

PREREQUISITE: None

#### CANES CHOIR

Freshmen, Sophomores, Juniors, and Seniors

Credit: 1.0

This course includes learning choral repertoire for school and public performances. It is also to develop and broaden the skills necessary for three to four part singing learned at the Mixed Choir level. Also, improvement of the finer points of the technique of choral singing is stressed. The choir performs for many school and public programs. This course meets every day for a full year and is worth one credit. Attendance at all scheduled performances and after school activities is mandatory. If the student does not perform in the concert, they will be given a final grade of 0%. A minimum grade of 90% must be achieved to remain in the Concert Choir.

PREREQUISITE: None

#### **ROCK, POP & THE SILVER SCREEN**

Junior Rotation Credit: .5

This course takes a closer look at three major music genres that have shaped modern culture: rock, pop, and movie soundtracks. Students will learn about the history, development, and influence of each genre, focusing on key artists, albums, and songs that have defined them.

Throughout the course, students will listen to and analyze music, take part in discussions, and study the lasting impact of these genres. By the end of the course, students will have a better understanding of how rock, pop, and movie music continue today's music and culture.

# **SCIENCE**

SCIENCE	GRADE 9	GRADE 10	GRADE 11	GRADE 12
	BIOLOGY	INTEGRATED SCIENCE 10	INTEGRATED SCIENCE 11	INTEGRATED SCIENCE 12
	HONORS BIOLOGY	HONORS CHEMISTRY (L)	CHEMISTRY	CHEMISTRY
			AP PHYSICS (L)	AP PHYSICS (L)
			AP BIOLOGY (L)	AP BIOLOGY (L)
			AP CHEMISTRY (L)	AP CHEMISTRY (L)

ELECTIVES	COMPUTER SCIENCE ESSENTIALS	COMPUTER SCIENCE ESSENTIALS	COMPUTER SCIENCE ESSENTIALS	COMPUTER SCIENCE ESSENTIALS
		INTRO TO	INTRO TO	INTRO TO
		ELECTRONICS	ELECTRONICS	ELECTRONICS
		AP COMPUTER	AP COMPUTER	AP COMPUTER
		SCIENCE PRINCIPLES	SCIENCE PRINCIPLES	SCIENCE PRINCIPLES

### **SCIENCE 6**

The 6th grade course is designed for all students who are enrolled in 6th grade. It is a comprehensive study of the state standards. Students will work on enhancing academic skills to be used in future science and other courses. Students will participate in lab activities, classroom activities, classroom demonstrations and 21st century technology. Evaluation methods may include but are not limited to objective testing, research projects, informal observation and project based assessments. Concepts involving earth science, and environmental science will be covered throughout the year.

### **SCIENCE 7**

The 7th grade science course is designed for all students entering the 7th grade. It is a comprehensive study of the state standards. Students will work on enhancing academic skills to be used in future science and other courses. Students will participate in lab activities, classroom activities, classroom demonstrations, and 21st century technology skills. Evaluation methods may include, but are not limited to, objective testing, essay writing, research projects, informal observation, project based assessments, and return demonstrations. Concepts involving environmental science will

be covered throughout the year.

# **SCIENCE 8**

The 8th grade Science course is designed for those students who are enrolled in 8th grade. It is a comprehensive study of the state standards. Students will work on enhancing academic skills to be used in future science and other courses. Students will participate in lab activities, classroom activities, classroom demonstrations, and 21st century technology. Evaluation methods may include, but are not limited to, objective testing, essay writing, research projects, informal observation, project based assessments, and return demonstrations. Concepts involving physical science, and environmental science will be covered throughout the year.

# **ACCELERATED SCIENCE 8**

The 8th grade Accelerated Science course at the New Castle Junior High School is designed to prepare students to meet the challenges of subsequent honors courses in the Advanced Placement Programs offered in the later grades at the New Castle Senior High School. Accelerated Science 8 focuses on the state standards while developing critical and higher level thinking skills and deeper exploration of the course content in the areas of physical science and environmental science. Students are required to participate in PJAS.

# INTEGRATED STEM 6 Innovate & Engineer: Solving Problems with STEM

This engaging 9-week STEM course introduces 6th-grade students to the fundamentals of technology and engineering through hands-on projects and real-world problem-solving. Aligned with the Technology and Engineering STEELS standards, students use design thinking in a human-centered way to solve problems using the engineering design process. They engage in problem recognition and definition, collaborative teamwork, research, prototype construction, and iteration following testing. By exploring these practices, students develop critical thinking, creativity, and technical skills essential for the 21st century. This course fosters curiosity and confidence in STEM while preparing students for future learning in science, technology, engineering, and mathematics.

# INTEGRATED STEM 7 Innovate & Engineer II: Advancing STEM Solutions

Building on the foundations of the 6th-grade STEM course, this 9-week program challenges 7th-grade students to deepen their understanding of technology and engineering through more complex problem-solving and innovation. Aligned with the Technology and Engineering STEELS standards, students apply design thinking in a human-centered way to tackle real-world challenges using the engineering design process. They engage in advanced problem recognition and definition, collaborative teamwork, research, prototype development, and iterative testing. By working through hands-on projects, students enhance their critical thinking, creativity, and technical skills, preparing them for higher-level STEM learning and future career pathways.

# INTEGRATED STEM 8 Innovate & Engineer III: Mastering STEM Solutions

Building on the skills and knowledge gained in the 6th and 7th-grade STEM courses, this 9-week program challenges 8th-grade students to apply advanced technology and engineering concepts to real-world problems. Aligned with the Technology and Engineering STEELS standards, students refine their use of design thinking in a human-centered way, utilizing the engineering design process to develop innovative solutions. They engage in complex problem identification, in-depth research, collaborative teamwork, prototype development, and iterative testing. This course introduces advanced topics such as artificial intelligence, sustainability in engineering, computational thinking, and emerging technologies. Through hands-on projects and real-world applications, students strengthen their problem-solving, creativity, and technical skills, preparing them for high school STEM coursework and future career pathways in science, technology, engineering, and mathematics.

### **BIOLOGY**

Freshmen Credit: 1.0 NCAA

This course is a comprehensive study of biology and life science and is aligned with STEELS standards. Concepts include: Basic Biological Principles, Chemical Basis of Life, Bioenergetics, Homeostasis, Cell Growth and Reproduction, Genetics, Evolution, and Ecology. Students will be required to complete the PA Keystone Exam upon Completion of course.

PREREQUISITE: Science 8

# **HONORS BIOLOGY**

Freshmen Credit: 1.0 NCAA

This course is a comprehensive study of biology and life science and is aligned with STEELS standards. Concepts include: Basic Biological Principles, Chemical Basis of Life, Bioenergetics, Homeostasis, Cell Growth and Reproduction, Genetics, Evolution, and Ecology. After completing an independently designed research project, students will then present to a panel of judges at the PJAS regional competition held at Slippery Rock University. Students will be required to complete the PA Keystone Exam upon Completion of course. This course is designed to provide advanced science students with the chance to be challenged and gain a deeper understanding of biological science.

PREREQUISITE: Accelerated Science 8, and teacher recommendation

#### INTEGRATED SCIENCE 10

Sophomores Credit: 1.0 NCAA

This sophomore-level science course is a more in-depth study of subjects introduced in freshman biology and is aligned with STEELS standards. Topics include evolution, ecology, environmental science, the chemistry of life, cell structure and function, transcription and translation. This course is designed to teach students to think scientifically and solve problems using the scientific method.

PREREQUISITE: Biology

### **INTEGRATED SCIENCE 11**

Juniors Credit: 1.0 NCAA

This year-long course covers Chemistry and Physics. The chemistry section of the course will cover concepts including atoms, molecules, compounds, water, the periodic table, bonding, and chemical reactions. Students will be expected to participate in group lab experiments, projects, and activities focused on the topics listed above. The Physics section of the course will provide an Algebra based introduction to Mechanics, Waves, and Electricity. Nuclear and Modern Physics topics aligned with Pennsylvania STEELS standards. Grading is based on tests, quizzes, and participation in group activities.

PREREQUISITE: Integrated Science 10

# **INTEGRATED SCIENCE 12**

Seniors Credit: 1.0 NCAA

This 12th grade General Science course integrates concepts from Environmental Science and Earth Science to provide students with a comprehensive understanding of the natural world. Students explore topics such as meteorology, earth and space systems, and human impact on the environment. The STEELS aligned course emphasizes inquiry, data analysis, and problem-solving, so students develop the critical thinking skills to understand complex systems to address global challenges.

PREREQUISITE: Integrated Science 11

### CHEMISTRY W/ LAB

Juniors and Seniors

Credit: 1.0 NCAA

This general level chemistry course will include such concepts as: atoms, molecules, compounds, periodic table, atomic structure, ionization energy chemical reactions, energy bonding atomic structure. Students will be expected to be able to perform basic algebraic operations along with an ability to write with proper grammatical skills and use proper speaking skills.

PREREQUISITE: Biology; Honors Biology; or Integrated Science 10

### HONORS CHEMISTRY W/ LAB

Sophomores Credit: 1.0 NCAA

This advanced level chemistry course covers the same concepts as chemistry, however, more in-depth. Students are expected to participate in group activities and write formal lab reports. After completing an independently designed research project, students will then present to a panel of judges at the PJAS regional competition held at Slippery Rock University. Students will be expected to be able to perform more advanced algebraic operations along with an ability to write with proper grammatical skills. Students will also be expected to do at least one presentation in front of their teacher and classmates throughout the year utilizing public speaking skills.

PREREQUISITE: Honors Biology or Biology w/ teacher recommendation.

# ADVANCED PLACEMENT PHYSICS W/ LAB

Junior and Seniors Credit: 1.5 NCAA

This lab-oriented course meets for two periods, every other day. It meets for one period on the opposite day. This course is recommended for anyone considering a major in science or engineering. Students are expected to participate in group activities and write lab reports. Concepts include: Newton's Law waves, sound, light, simple harmonic motion, electricity and magnetism, conservation of momentum and conservation of energy. These concepts will be covered at a fast and challenging pace. \*Offered every other year.

PREREQUISITE: Algebra II or higher

### ADVANCED PLACEMENT BIOLOGY W/ LAB

Juniors and Seniors Credit: 1.5

NCAA - Seton Hill

This advanced placement course meets the objectives of General Biology I and II and General Biology I and II lab courses on the college level. This is also a College in High School Course. Students will conduct laboratory experiments that are designed to be comparable to those at the college level. Concepts covered throughout the year include: themes in the study of life, the cell, the cell membrane and transport, the cell cycle, classification, the diversity of life (bacteria, archaea, protists, plants, invertebrates, and vertebrates), botany, and ecology.

PREREQUISITE: Honors Biology; Honors Chemistry; or teacher recommendation

# ADVANCED PLACEMENT CHEMISTRY W/ LAB

Juniors and Seniors Credit: 1.5 NCAA - Seton Hill

This year-long advanced placement course/College in High School Course meets for two periods every other day. It meets for one period on the opposite day, and covers all major areas of chemistry. In the laboratory portion of the class, students will perform required experiments and complete formal lab reports. The course will culminate with the AP Chemistry Exam in the spring for college credit (not required). Major Concepts include: nomenclature, stoichiometry, periodicity acid-base, solubility kinetic-molecular theory, gas laws, organic chemistry, chemical bonding, electron structure, current topics thermodynamics. Students will be expected to write at a college level and work in groups to perform lab experiments. Students taking this class should have a strong understanding of basic chemistry and advanced algebra. Students will also be expected to do at least one presentation in front of their teacher and classmates throughout the year utilizing public speaking skills.

PREREQUISITE: Honors Biology; Honors Chemistry; or teacher recommendation

### INTRODUCTION TO ELECTRONICS

Sophomores, Juniors, and Seniors

Credit: 1.0

Electricity and electronic systems are explored through the study of DC and AC circuits. Practical experience in parallel and series circuit analysis is gained through hands-on activities and labs. Students will get hands-on experience repairing chromebooks, laptops, desktops and cell phones with the supervision of the teacher and technology department.

PREREQUISITE: None

# COMPUTER SCIENCE ESSENTIALS

Freshmen, Sophomores, Juniors, and Seniors

Credit: 1.0 NCAA

Computer Science Essentials is a full-year course that is an excellent entry point for new high school computer science learners. No previous programming experience is required, but students who have prior computer science experience, have many opportunities to build upon their prior knowledge and skills. Students will learn the Python programming language using Carnegie Mellon University's CS Academy. This course is available in Spanish.

PREREQUISITE: None

# ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES

Sophomores, Juniors, and Seniors Credit: 1.0

NCAA

Computer Science Principles is a full year course offered to students who have successfully completed Computer Science Essentials. Using Python as a primary tool and incorporating multiple platforms and languages for computation, this course aims to develop computational thinking, generate excitement about career paths that utilize computing, and introduce professional tools that foster creativity and collaboration. Computer Science Principles helps students develop programming expertise and explore the workings of the Internet. Projects and problems include app development, visualization of data, cyber security, and simulation. The course is designed to cover all learning objectives in the College Board's AP CS Principles framework and to prepare students to do well on the AP assessment. In specific CSP projects and problems, students create artifacts and associated writing as practice for the AP CS Principles Performance Tasks that can be submitted to the College Board.

PREREQUISITE: Computer Science Essentials

# SOCIAL STUDIES

SOCIAL STUDIES	GRADE 9	GRADE 10	GRADE 11	GRADE 12
	CIVICS/LAW	U.S. HISTORY	WORLD CULTURES	DEMOCRACY & SOCIETY
		HONORS WORLD CULTURES	AP U.S. HISTORY	AP ECONOMICS
			U.S. HISTORY	AP U.S. HISTORY
ELECTIVES		MOCK TRIAL: REASON & LOGIC	MOCK TRIAL: REASON & LOGIC	MOCK TRIAL: REASON & LOGIC
		INTRO TO PSYCHOLOGY	INTRO TO PSYCHOLOGY	INTRO TO PSYCHOLOGY

# **SOCIAL STUDIES 6**

Students learn and build a foundation of United States History from United States Geography to significant events from building our nation, the declaration of independence, writing of the constitution, the branches of government, and many significant events that built our nation to what it is today.

Students will learn about cultural, economic, and political aspects of United States History. Throughout this course and our studies, we will be following themes that had a direct impact on United States History.

# WORLD CULTURES 7

Events that happened hundreds of years ago, or thousands of miles away, can have a powerful impact on our lives. Ancient Greeks pioneered democratic ideas that influenced the framers of our Constitution. American rock n' roll grew out of the music brought to North America by Africans in the time of slavery. Today, decisions made by a Brazilian planter, a Saudi Arabian oil minister, or a Japanese manufacturer can have a direct impact on our daily lives. Throughout this school year we will look into how today's complex world came to be.

Throughout this course and our studies, we will focus on the following nine themes that have had a direct impact on our World's History: continuity and change, geography and history, political and social systems, religion, value systems, economics, technology, and the diversity impact of individual global interaction.

### U.S. HISTORY 8

Students will learn about cultural, economic, and political aspects of our early history. Students will learn how our forefathers adjusted to their new geographical environment, how their European ways were modified as they became Americans, and how they established an independent nation. Students will learn how our country grew, how commerce, transportation, industry developed, and the geographic history of our nation.

### **ACCELERATED U.S. HISTORY 8**

Students will learn about cultural, economic, and political aspects of our early history. Students will learn how our forefathers adjusted to their new geographical environment, how their European ways were modified as they grew into Americans, and how they established an independent nation. Students will examine how our young nation through the development of trade, commerce, transportation, industry, and political treaties developed into a major world power. CONTENT AREA: European exploration up to the Civil War. Students will learn about the people and events that have shaped our country and made it a land of opportunity and a leader among nations of the world. Students will examine the foundations of our society and identify the responsibilities of citizens in a free and independent nation. Students will develop skills in the use of maps, graphs, charts, time lines, computers, internet, powerpoint/slides, text books, and reference materials. Students will delve deeper into normal course material and will be asked to think critically as well as analyze the importance of historical documents and artifacts.

PREREQUISITES: 95% or higher in 7th grade World Cultures; Teacher recommendation from 7th grade World Cultures Teacher

# **CIVICS & LAW**

Freshmen Credit: 1.0 NCAA

Civics & Law is a full year course. This is a required Social Studies Course for all students. Students will study the structure and purpose of America's Government. Students will examine citizens' commitment to the nation as a part of our Democracy. Students will analyze political, social, religious and economic changes that have and will continue to influence the United States. Students will learn how the United States Constitution protects our fundamental rights and liberties. Students will learn how citizens must fulfill their civic duties and responsibilities for our government to be effective. At the conclusion of this course, students will take an assessment for Act 35 reporting.

PREREQUISITE: None

# **U.S. HISTORY**

Sophomores and Juniors Credit: 1.0 NCAA

This class covers U.S. History from 1865(Reconstruction) through our present time. The emphasis will be on domestic affairs, foreign policy, and military conflicts as well as social, political, economic, and cultural changes. Course topics include: Reconstruction, Industrial Revolution, World War I, The Roaring Twenties, the Great Depression, the New Deal, World War II, the Baby Boom, the Cold War, the Korean War, the Civil Rights Movement, the Vietnam War, the Persian, Gulf War, 9/11 Attacks, the Iraq War, and America's aging population. Students will continue to examine the foundations of our society and identify the responsibilities of citizens in a free and independent state. Students will also develop skills in the use of maps, graphs, charts, timelines, computers and internet, power point, text books, and reference materials.

PREREQUISITE: None

### ADVANCED PLACEMENT U.S. HISTORY

Juniors and Seniors Credit: 1.0 NCAA - Seton Hill

Advanced Placement U.S. History is a survey course covering the time period from the discovery of America to the present. It is designed to provide students with factual knowledge and the analytic skills necessary to deal critically with problems and materials in U.S. History. Students should be able to arrive at conclusions on the basis of an informed judgment. The Advanced Placement Exam should be taken in order to receive college credit.

PREREQUISITE: 90% or higher in previous English or History class.

### WORLD CULTURES

Juniors Credit: 1.0 NCAA

In this required course, students will study the history of the modern world from the Renaissance through the Cold War to the present. The focus will be on the development of Western Civilization and its impact on the rest of the world.

PREREQUISITE: None

### HONORS WORLD CULTURES

Sophomores Credit: 1.0 NCAA

Honors World Cultures is designed to increase a deeper awareness and understanding of global history. The course will emphasize modern world history from the "Renaissance" through the "Cold War." Honors students will also be required to answer essay questions on tests, take part in group activities, make an oral presentation, and/or complete a research project paper each semester.

PREREQUISITE: Recommendation from English Teacher

# **MOCK TRIAL: REASON & LOGIC**

Sophomores, Juniors, and Seniors

Credit: 1.0

This elective course is designed to enhance critical thinking, research, and communication skills. Combining reason and logic, students will learn to develop argument technique by constructing, presenting, defending, and critiquing arguments. The focal point of the class is to prepare students to participate in the statewide Mock Trial competition. Over 250 high school student teams from across the state compete on a county level. County winners go on to compete for the state championship. Students will have the opportunity to work closely with local attorneys, learning the "art" of legal arguments in preparation for the tournament. This course is designed to produce teams that engage in competition; therefore, student participation is absolutely mandatory in class mock trials, University of Pittsburgh's Mock Trial tournament, and the State competition.

PREREQUISITE: None

### ADVANCED PLACEMENT ECONOMICS

Seniors Credit: 1.0

**NCAA - Seton Hill** 

Advanced Placement Economics is a full-year course taught at the college level. It is a microeconomics course designed to teach students about the economic decisions of households and firms. Students will study the impact that individuals and firms have on the economy and will be able to apply the economic principles learned in class to everyday life. Every student is encouraged to take the AP Microeconomics Exam and college credits are available from Seton Hill University.

PREREQUISITE: None

# **DEMOCRACY & SOCIETY**

Seniors Credit: 1.0 NCAA

This year-long course integrates the study of government, economics, and sociology to provide students with a comprehensive understanding of how societies function. Students will explore the foundations of American democracy, civic participation, and global perspectives while examining economic principles that shape decision-making at individual and national levels. Additionally, the course delves into sociological concepts to analyze social structures, cultural diversity, and contemporary societal issues. Through discussions, case studies, and real-world applications, students will develop critical thinking skills and a deeper appreciation for the interconnectedness of government, economy, and society.

PREREQUISITE: None

# INTRODUCTION TO PSYCHOLOGY

Sophomores, Juniors, and Seniors

Credit: .5

Psychology is the systematic study of individual human behavior and experience. The purpose of this course is to introduce students to the content, terminology, methodology, and application of the discipline. This survey course contains an introduction followed by four units based on the physiological, cognitive, behavioral, and affective domains of psychology.

PREREQUISITE: None

# STEAM & TECHNOLOGY ED DEPARTMENT

GRADE 9	GRADE 10	GRADE 11	GRADE 12
INTRO TO STEAM	APPLIED ROBOTICS	APPLIED ROBOTICS	APPLIED ROBOTICS
COMPUTER FUNDAMENTAL SKILLS	COMPETITIVE ROBOTICS	COMPETITIVE ROBOTICS	COMPETITIVE ROBOTICS
APPLIED ROBOTICS	VIDEO PRODUCTION	VIDEO PRODUCTION	VIDEO PRODUCTION
EVOLUTION OF GAME DESIGN	EVOLUTION OF GAME DESIGN	EVOLUTION OF GAME DESIGN	EVOLUTION OF GAME DESIGN

### **FUTURE READY 6 - LIBRARY SCIENCE**

This is a 9 week course for 6th grade students focusing on digital citizenship lessons, novel engineering, the concept of navigating a library, and literary genres. Students will learn to become independent library users:

- 1. Students will become familiar with the layout of the library floor plan.
- 2. Students will learn how to navigate and utilize our online catalog: Follett Destiny.
- 3. Students will learn the meaning of Lexile Levels and correlating Reading Levels.

#### **Novel Engineering:**

- 1. Enhances Reading Comprehension: students will relate to the characters as they work to create solutions to find details to predict character's choices. Students support their ideas with evidence from the text.
- 2. Engages All Learners: Novel Engineering provides students who struggle with language arts a new way to demonstrate comprehension.
- 3. Provides Integration of Different Disciplines: using text to find engineering problems and engineering to promote the text provides synergistic integration of different disciplines and meets common core and next generation science standards.
- 4. Introduces Realistic Engineering Problems: students will look for problems in the text as "engineers" enabling the students to achieve higher-level engineering standards than expected in their grade level.
- 5. Builds 21st Century Skills: students will engage in the Engineering Design Process that will allow students to practice 21st century skills such as teamwork and communication.

# **FUTURE READY 7 - "ART" in STEM**

This is a 9 week course for 7th grade students that builds on the understanding of the principles of design in which students produce self expressive art by exploring new techniques and digital media. Students will learn time management, decision making skills, visual aesthetics with the combination of fine arts and graphic art processes. Students will use critical thinking to solve obstacles that arise during the creation process, while increasing students confidence and success in creating multimedia works of art.

### 8th GRADE AUTOMATION AND ROBOTICS

Students trace the history, development, and influence of automation and robotics as they learn about mechanical systems, energy transfer, machine automation, and computer control systems. Students use the VEX Robotics platform to design, build, and program real-world objects such as traffic lights, toll booths, and robotic arms.

### **FUTURE READY 8 - GOOGLE TOOLS**

The Google Tools course is designed to build upon student knowledge of G Suite tools and applications. Students will focus on the completion of problem-based activities and projects. Students will learn how to utilize various Google Tools in both academic and professional levels. In addition, students will be exposed to and identify the uses of Artificial Intelligence (AI) and how to effectively utilize it.

#### INTRO TO STEAM

Freshmen Rotation

Credit: .5

Introduction to STEAM is a semester course on Graphic Design, Computer Aided Design (CAD), and Engineering. During the semester, students will spend 6 weeks learning about graphics, 6 weeks learning on engineering, and 6 weeks on drafting and design. Throughout the graphics segment, students will learn how to use Graphics Software and be introduced to the Elements and Principles of Design. Students will then be introduced to engineering. Students will complete a number of engineering projects that will give them a brief introduction to multiple areas of engineering. The last 6 weeks students will use CAD software that will allow students to use the laser engraver and 3D printer. Once students complete the Intro to STEAM course they may choose to go to CAD I or Intro to Engineering.

PREREQUISITE: None

# COMPUTER FUNDAMENTAL SKILLS

Freshmen Rotation

Credit: .5

Students will apply skills by completing activities using Google Apps for Education G-Suite (Sheets, Docs, Slides, Forms, etc). Evaluation is based upon the timely completion of tasks performed within the applications to demonstrate the skills needed to be proficient. Students must also complete projects that incorporate skills from multiple Google applications used in conjunction. This course is working on offering Google G-Suite certification exams for students who successfully complete the course modules

PREREQUISITE: None

### APPLIED ROBOTICS

Freshmen, Sophomores, Juniors, and Seniors

Credit: 1.0

Students of the Applied Robotics course can earn two SMART Robotics Technician Micro-Certifications by uploading evidence (e.g. photos, videos, diagrams) of various aspects of their robot and passing knowledge assessments (quizzes). The evidence and quiz focus on the Knowledge, Skills, and Attitudes that were identified during the course. There are a total of 5 SMART Robotics Technician Micro-Certifications available that focus on different foundational competencies. Participants in Applied Robotics will complete "Mechanical Foundations" and "Fabrication Foundations" Micro-

Certifications.

PREREQUISITE: Completion of 8th Grade Automation Robotics

### **COMPETITIVE ROBOTICS**

Sophomores, Juniors, and Seniors

Credit: 1.0

VEX Robotics Competition (VRC) is an international program for middle and high school students that has as its goal to engage student participants in the study of science, technology, engineering, and math (STEM) through a competition. Each year, an engineering challenge is presented in the form of a game. Students will build innovative robots designed to score the most points possible in qualification matches, elimination matches and Skills Challenges. Beyond science and engineering principles, a VEX Robotics project encourages teamwork, leadership and problem solving among groups. In addition to having a great time and building amazing robots, through their participation in the VEX Robotics Competition and their work within their team, students will learn many academic and life skills.

PREREQUISITE: Applied Robotics

### VIDEO PRODUCTION

Sophomores, Juniors, and Seniors

Credit: 1.0

This course is designed to expose students to the world of media by teaching the fundamentals of video production, storyboarding, and presenting. Students will write, shoot, and edit a variety of video productions and projects. Instruction will include lab activities and skill development projects. Students will also learn shot sequencing and cinema graphic techniques. Skills developed in this class will prepare students to generate video projects for other courses. Assessments will include projects, portfolio pieces, tests, and quizzes.

PREREQUISITE: None

# **EVOLUTION OF GAME DESIGN**

Freshmen, Sophomores, Juniors, and Seniors

Credit: 1.0

Today's professional game designers re-use dynamics from many different types of games. "Gaming" doesn't only mean video games. Gamers also play board games, card games, simulations, and participate in interactive stories. In this full year class, students will get a chance to explore ancient cultures, their games, and find out how ancient civilizations designed games using available technology and resources. Students will get hands-on experiences using the engineering design model to create their own original game. Students will learn fundamentals through hands-on modding, prototyping and iteration.

PREREQUISITE: None

# OTHER/CAREER READINESS ELECTIVES

GRADE 9	GRADE 10	GRADE 11	GRADE 12
P.E.E.S. I	P.E.E.S. I	P.E.E.S. I	P.E.E.S. I
P.E.E.S. II	P.E.E.S. II	P.E.E.S. II	P.E.E.S. II
			CO-OP WORK EXP

# PEES I: PERSONAL EMPLOYABILITY & ENTREPRENEURIAL SKILLS

Freshmen, Sophomores, Juniors, and Seniors

Credit: .5

This course provides students with knowledge of general employability and entrepreneurial skills as well as the means of obtaining those skills. Employability skills include the fundamentals of maintenance of personal appearance and grooming. The course also includes the knowledge, skills, and attitudes that allow employees to get along with their co-workers, make important work-related decisions, and become strong members of a work team. This course is designed to guide students in obtaining the knowledge and the needed employability and entrepreneurial skills that are transferable among a variety of jobs and careers and are considered essential in any employment situation. Students will learn and apply basic knowledge of what is expected in the workplace. \*Offered every other year.

PREREQUISITE: None

### PEES II:PERSONAL EMPLOYABILITY & ENTREPRENEURIAL SKILLS

Freshmen, Sophomores, Juniors, and Seniors

Credit: .5

In an increasingly competitive job market and dynamic business landscape the ability to adapt, innovate, effectively communicate one's values is paramount. The "Personal Employability and Entrepreneurial Skills 2" course is designed to equip students with the essential skills and knowledge necessary to enhance their employability while fostering an entrepreneurial mindset. This course focuses on the entrepreneurial skills needed to be successful in the business world.

\*Offered every other year.

PREREQUISITE: None

### COOPERATIVE WORK EXPERIENCE

Seniors

Credit: 1.0 Pass/Fail

Cooperative education gives students the chance to attend school and perform entry level tasks in businesses within our community. Students will be required to submit an application to be considered for this class and must be in good standing with attendance, discipline and academics. All applicants will be screened by administration prior to approval. Participation in this program will be on a limited basis. Employment will be verified by the supervising teacher. The teacher, guidance counselor and employer will work together to assure student success in school and on the job. Graduation is the goal for every student; no student will be considered if they are behind in graduation requirements and credits. An orientation meeting will be held in May/September/January.

#### **Additional Requirements:**

• Application for co-op must be turned in at the end of 11th grade year to be considered for approval.

- Students will have class and remain in the building 1 day per week to work on soft skills and SEL curriculum. This will be worked out by the teacher and employer.
- Assignments will be given each week and will need to be completed as per the deadline given by the instructor.
- Current work calendar/schedules must be turned in every two weeks or monthly.
- Students must turn in pay stubs bi-weekly
- On-site visits by teacher/guidance counselor/principal will happen at least once per 9 weeks (more frequent if necessary).
- At any time, students may be asked to return to school if the teacher feels they are not upholding the established expectations.

# LAWRENCE COUNTY CAREER & TECHNICAL CENTER'S

# ACADEMIC COURSES OFFERINGS

(All courses listed are 1 credit course with the exception of Elective Course Offerings).

# **English Course Offerings:**

English 10

College Prep English 10

English 11

College Prep English 11

English 12

College Prep English 12 Dual Enrollment - Speech

### **Science Course Offerings:**

Applied Physics Biology 1 with Lab Advanced Biology 2 with Lab Biology 2 with Lab

Chemistry with Lab Physics with Lab

#### **Math Course Offerings:**

Algebra 1 Algebra 2

Advanced Algebra 2 Business Math

Calculus
Geometry
Pro-Calculus

Pre-Calculus Trigonometry

# **History Course Offerings:**

World History
United States History
American Government
Dual Enrollment - Ancient History

# **Elective Course Offerings:**

Physical Education - Required Health - Required Current Issues Financial Literacy Introduction to Psychology

# **Basic Course Offerings:**

Intro to Algebra (A&B) Consumer Math Essential English (Levels 1,2 &3) Academic Support

# **CAREER & TECHNICAL OFFERINGS:**

### NEAREST RELATED PROGRAM

(An aide to help you select second choice)

- 1. AUTO TECHNOLOGY
- 2. COLLISION REPAIR
- 3. COMMERCIAL ART
- 4. COMPUTER AND OFFICE
- CONSTRUCTION TRADES
- COSMETOLOGY
- 7. ELECTRICAL OCCUPATIONS
- 8. HEALTH ASSISTANT
- MACHINE TOOL TECHNOLOGY
- 10. MASONRY
- 11. OIL AND GAS TECH
- 12. RESTAURANT TRADES
- 13. VETERINARY ASSISTANT
- 14. WELDING

An Equal Rights and Opportunities Area Career & Technical Center

# Cooperative Education - "CO-OP"

Cooperative Education is a method of instruction for  $12^{\text{th}}$  grade LCCTC students, who receive instruction on-the-job related to their Career & Technical program.

- Senior students who meet attendance and grade requirements are matched with a training station (job site) that meets their career objective.
- Students alternate between studying at LCCTC and their co-op job. For example, a student may spend the morning at LCCTC for academic classes and the afternoon at their co-op job.
- Co-op is a paid work experience program.
- Successful co-op students may be retained by employers after graduation.

# **How to Apply to LCCTC**

Acceptance for admission to the Lawrence County Career and Technical Center is based on the following criteria:

- **Submission of "Application for Admission"** Applications may be obtained at your Guidance Office or by calling the LCCTC Guidance Office at 724 658-3583, ext. 7104
- Accumulation of a Minimum of Four (4) Full Credits\*
  - 1 Full Credit in English passing grade
  - 1 Full Credit in Math passing grade 2 Full Credits in 2 other subjects

  - o A Good Attendance Record
  - A Good Discipline Record
- Parent/Guardian Signature on Application

<sup>\*</sup> If you do not have these credit requirements you should attend Lawrence County CTC Summer School or your Home District Summer School. You will not be admitted without them.