

2026-27 CURRICULUM GUIDE

MANHEIM CENTRAL HIGH SCHOOL

400 ADELE AVE
MANHEIM PA 17545

Principal's Message **4**
Graduation Requirements **5**
Pennsylvania State Graduation Pathways **5**
High School Credit Earned in Middle School **6**
Grade Promotion and Retention **6**
Credit Recovery Options **7**
Course Levels **7**
Assessments **7**
Advanced Placement (AP) 7
Keystone Exams 8
PSAT 8
SAT 8
Manheim Central Learning Experiences **8**
5th Credit Option 9
College in the High School Program 9
Dual Enrollment 9
Lancaster County Career and Technical Center **10**
Juniors Attending the LCCTC 10
Seniors Attending the LCCTC 10
Online Learning **11**
Post- Secondary Transitions **11**
Career Mentoring & Industry Tours Opportunities 11
Internship Program and Service-Work Program 11
Class Rank **12**
Method of Calculating and Reporting 12
Weighted Class Rank Guidelines 12
Formula for Calculating Weighted Grade Point Average 12
Honor Roll **13**
Early Graduation **13**
Schedule Changes **13**
NCAA Eligibility Center **14**
Agriculture **24**
Art **33**
Business Education **39**
Computer Science **42**
English Language Arts **45**

Family and Consumer Sciences **59**
Health and Fitness **65**
Mathematics **73**
Music **83**
Science **88**
Social Studies **97**
Special Education **112**
Student Services **123**
Technology and Engineering **130**
World Languages **140**

Principal's Message

Dear Parent(s) / Guardian(s) and Students:

Students attending Manheim Central High School (MCHS) are about to embark on important decisions regarding the high school experience as courses are selected for the upcoming academic year. While next year may seem far off, decisions and choices made over the next few months will play a major role in determining the direction and quality of educational experiences moving forward.

Please remember that the Curriculum Guide is only a starting point in determining a schedule. This document provides a comprehensive overview of the academic offerings available to Manheim Central High School learners. I encourage parent(s)/guardian(s) and students to review the contents and then utilize this resource to assist in crafting an educational plan. Therefore, it is essential for students to engage in conversations with parent(s)/guardian(s) and establish personal and educational goals for the future. Make certain the courses chosen reflect not only your current interests, but also your goals post graduation as well .To this end, I encourage all learners to take advantage of the various program offerings, but also explore new areas of study to expand and grow your skill set as a learner.

To learn more about the course offerings, students are encouraged to seek guidance from your school counselor, teachers, and appropriate department representatives so that you can make sound decisions.

Finally, recognize this document outlines all the course offerings for the high school; however, the schedule is determined by course enrollments. As such, courses listed within this Curriculum Guide may not be offered and are subject to change at the discretion of the administration.

Dr. Weitzel
Principal, Manheim Central High School

Manheim Central High School Administration and School Counselors	
Dr. Joshua Weitzel	Principal
Mrs. Megan Flinchbaugh	Assistant Principal
Mr. Eric Beiler	Assistant Principal / Administrator of Online Learning
Mr. Stephen Fulmer	Dean of Students
Dr. Christina Mercandetti	School Counselor for Students with Last Names A-Hau
Mr. Shane Martin	School Counselor for Students with Last Names Hav-Pats
Mrs. Nicolle Matos	School Counselor for Students with Last Names Patt-Z

Graduation Requirements

Course	Required Credit Earnings
English Language Arts	4 Credits
Mathematics	4 Credits
Social Studies (Must include American Government & Financial Literacy)	3 Credits
Science	3 Credits
Physical Education	1.5 Credits
Health	0.5 Credit
STEM (Any course from Computer Science and Technology & Engineering Department)	0.5 Credit
Humanities (Any course within the Music department, any introductory course within the Art department, or any introductory course or first level foreign language course within the World Language department)	0.5 Credit
Personal Financial Management	0.5 Credit
Elective Courses	11 Credits

Pennsylvania State Graduation Pathways

In accordance with Pennsylvania's Act 136 of 2020, beginning with the graduating class of 2023, students must meet statewide graduation requirements in one of five ways.

Pathway	Pathway Explanation
#1: Keystone Proficiency	A student scores proficient or advanced on each Keystone Exam, Algebra 1, Biology and Literature.
#2: Composite Score	Earn a satisfactory Composite Score on the Algebra 1, Biology and Literature Keystone Exams. To meet the composite score requirement students must score proficient on at least 1 exam AND score basic on the remaining exam(s) with an overall score of at least 4,452
#3: NOCTI	After a minimum of one unsuccessful attempt on each of the Keystone Exams AND earning a passing grade in the courses associated with each Keystone Exam (Algebra 1, Biology, 10th Grade Literature or concurrent course), students can meet graduation pathway #3 through completion of the National Occupational Competency Testing Institute (NOCTI) or the National Institute of Metalworking Skills (NIMS) assessment in an approved Career and Technical Education concentration with a written and performance score of 'Competent' or 'Advanced'.
#4- Alternative Assessments	After a minimum of one unsuccessful attempt on each of the Keystone Exams AND earning a passing grade in the courses associated with each Keystone Exam

	(Algebra 1, Biology and 10th Grade Literature or concurrent course), students can meet graduation pathway #4 through completion of one of the following alternate assessments earning the minimum required score: ASVAB, PSAT, and/or SAT. o Attainment of an established score on an approved alternate assessment (SAT, PSAT, ACT, ASVAB): o SAT (Scholastic Aptitude Test): score of 1010 (option to test at MCHS) o PSAT: score of 970 (option to test at MCHS) o ASVAB (Armed Services Vocational Aptitude Battery exam): score of 31 (option to test at MCHS) o ACT: score of 21
#5- Career Portfolio	After a minimum of one unsuccessful attempt on each of the Keystone Exams AND earning a passing grade in the courses associated with each Keystone Exam (Algebra 1, Biology and 10th Grade Literature or concurrent course), students can meet graduation pathway #5 by demonstrating readiness for postsecondary engagement through three pieces of evidence from the student's career portfolio aligned to student goals and career plan. Students will be expected to complete three (3) one-page reflections based on their experiences at three (3) different career-oriented opportunities. Examples of evidence include a job shadowing experience, internship, work study, or co-op placement

High School Credit Earned in Middle School

Coursework recognized by Manheim Central High School taken prior to 9th grade will be recognized by Manheim Central High School as credits earned towards high school graduation. The course name, final grade, and the credit earned will be reflected on the student's high school transcript. Grades earned prior to 9th grade will not be calculated into the student's high school GPA or class rank.

High school students who complete all course offerings may enroll in a dual enrollment course (tuition and fees would be determined by the specific college/university and all costs are incurred by the student) or the student may specialize in another area of study offered by the high school.

Grade Promotion and Retention

To ensure adequate yearly progress towards graduation, students must meet the minimum requirements listed below to be promoted to the next grade. Students who remediate classes through one of the high school's approved credit recovery options will be re-evaluated for grade level placement.

- **Promotion from 9th to 10th grade:** The student must have a cumulative total of 4 credits at the end of his/her freshman year.
- **Promotion from 10th to 11th grade:** The student must have a cumulative total of 12 credits at the end of his/her sophomore year.

- **Promotion from 11th to 12th grade:** The student must have a cumulative total of 20 credits at the end of his/her junior year.
- **Graduation:** The student must have earned a minimum cumulative total of 28 credits in the subject areas outlined by the high school's graduation requirements and earn 7 out of 8 credits during the senior year.

Credit Recovery Options

A student who fails at Manheim Central High School has the option to either attend an approved summer school or to make up the credit via an approved online or correspondence credit recovery provider. Based upon course availability, students may also utilize the 5th credit option during the school year to recover failed credits. Interested students should meet with their school counselor for further information. Credit recovery is only available once a student earns an unsatisfactory or failing final grade.

Course Levels

The high school offers instruction at the following academic levels: Advanced Placement, Honors, and Post-Secondary Preparation. Each level designates the academic difficulty and depth of study within a course. To ensure the most appropriate placement, students should seek input from their parent(s)/guardian(s) and teachers. Additionally, learners should refer to the prerequisites outlined in the curriculum guide. The levels of instruction for all courses are described as follows:

- **Advanced Placement (AP):** This level refers to college-level courses taught according to syllabus prescribed by The College Board Advanced Placement Program and are designed to prepare students for the College Board AP Tests. AP courses receive School Board approved weighting when the cumulative Grade Point Average (GPA) is calculated.
- **College In The High School:** The College in the High School program enables qualified high school students to enroll in college level courses at their high school or technical school during the regular school day.
- **Honors:** This level refers to those courses taught at a high school level and serve as preparation for post-secondary opportunities. Honors level courses are the gateway to AP course work. Honors level courses receive School Board approved weighting when the cumulative Grade Point Average (GPA) is calculated.
- **Post-Secondary Preparation:** This level refers to those courses taught at a high school level and serve as preparation for post-secondary opportunities. Post-Secondary Preparation courses are designed to prepare learners for continuing their education at a four-year or two-year institution as well as those with plans to enter directly into the workforce.

Assessments

Advanced Placement (AP)

MCHS will offer the AP exams on the dates determined by CollegeBoard. Students will be required to register for the AP Exams through their MyAP account and submit the necessary paperwork and payment to the AP Coordinator.

Any student who faces financial hardship should meet with their school counselor, administration, or AP coordinator to apply for a fee waiver.

Keystone Exams

Students are required to take Keystone Exams in Algebra, Literature, and Biology per federal and state policies. For more detailed information on the Keystone Exams, please visit the Pennsylvania Department of Education's website. Listed below are the students who will be taking the exams during the upcoming academic year.

- **Algebra**
  - Any student in the current academic year who has completed Algebra I or Algebra I, Part 2
  - Any student who has previously completed the course but is not currently proficient on the Keystone Exam (to include all juniors, sophomores, and freshmen)
- **Biology**
  - Any junior who is not currently proficient on the Keystone Exam
  - All who have completed the course in high school
  - Any freshmen who have completed the course in high school
- **Literature**
  - Any junior who is not currently proficient on the Keystone Exam
  - All sophomores who have completed the course in high school

PSAT

It is recommended by the College Board that a student in grade 10 take the PSAT10 in the spring of their sophomore year and students enrolled in grade 11 take the PSAT/NMSQT in the fall of their junior year. Sophomores are permitted to take the PSAT/NMSQT but will not be able to qualify for the National Merit Scholarship Program. Only juniors who take the PSAT/NMSQT can qualify for the National Merit Scholarship Program. MCHS will proctor both exams during the school day and students will be able to register and pay for the exams in the student services office. For more information about these exams please visit the College Board website at www.collegeboard.org.

SAT

It is recommended by the College Board that a student take the SAT in the spring of their junior year and again in the fall of the student's senior year. Students will be able to take the exam at Manheim Central High School (MCHS) or an off-site location. MCHS will offer the SAT to students on two dates during the school day. The high school will proctor the exam once in the fall and then again in the spring. MCHS will announce the dates for the SAT School Day exams. Students who would like to take the exam at MCHS will register and pay for the exam in the student services office.

Students who would prefer to test at an off-site location on a Saturday can register at www.collegeboard.org. The specific dates and locations of the Saturday exams are determined by the College Board. For more information about the SAT exams please visit the College Board website at www.collegeboard.org.

Manheim Central Learning Experiences

Manheim Central offers various learning formats for students. Each learning opportunity is intended to best prepare students for their goals and life after high school. As a high school, we strongly encourage students to develop their post-secondary plans and take advantage of the opportunities available at the high school.

5th Credit Option

Students will be able to schedule one additional credit per semester up to a limit of ten total credits per academic year. Additional credit(s) must be selected from either the Manheim Central Online Academy or a dual enrollment partner. Manheim Central Online Academy coursework will be factored into the student's class rank and GPA.

We encourage students to discuss this option with their parent(s)/guardian(s) to ensure that taking this additional coursework is the best academic decision for the student.

College in the High School Program (CHS)

The College in the High School program enables qualified high school students to enroll in college level courses at their high school or technical school during the regular school day. College in the High School students earn concurrent high school and college credit. Course offerings are selected from the college's or university's required courses, core curriculum or technical courses. Courses are taught by a high school teacher who qualifies as an adjunct faculty member and are offered to high school students at a reduced tuition rate. Students are responsible for the cost of the course.

Dual Enrollment

Dual Enrollment is the opportunity for students to take college courses and high school courses at the same time. The college credits earned can count towards both high school graduation and a college transcript. All courses taken under this program must be *core academic courses* as defined by the No Child Left Behind Act of 2001. This means that courses can be in any of the following subjects: English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, arts, history and geography, psychology, and sociology.

Manheim Central High School currently has agreements with the schools listed below. Schools marked with an * indicate that MCHS does not have an agreement with that particular college/university but students are permitted to take courses at those institutions.

Elizabethtown College Harrisburg Area Community College *Lancaster Bible College Lebanon Valley College	Millersville University *Penn State University Pennsylvania College of Health Sciences	Thaddeus Stevens College of Technology (required full-day program) Harrisburg University

Enrollment Process: Students are responsible for all enrollment/application procedures related to dual enrollment opportunities. Students must comply with all academic, attendance, and behavioral requirements related to dual enrollment as outlined in the Manheim Central High School Handbook.

Dual Enrollment Costs: Students are responsible for all costs related to dual enrollment including but not limited to, application fees, tuition, textbooks, tools, uniforms, lab fees or institutional fees. The college/university will bill the student directly and any questions about costs should be directed to the college or university.

Scheduling Dual Enrollment Courses: Students should communicate to their school counselor that they are applying to take a dual enrollment course(s). Once the dual enrollment application process is complete and the student has registered for a dual enrollment course(s), the student is required to give their school counselor a copy of their dual enrollment schedule from the college/university. Upon receipt of the schedule, the student's school counselor will change the student's Manheim Central High School schedule.

Grading: Upon completion of the dual enrollment course, the student must submit their college transcript or college report card to their school counselor. Any failing grade of 59% or below will earn a "U" (unsatisfactory) on the student's high school transcript and no credit will be awarded. All passing grades, 60% and above will earn an "S" (satisfactory) on the student's high school transcript and receive the appropriate credit for the dual enrollment course.

Manheim Central High School (MCHS) Transcript Credit Values:

1. 4-credit college course: reflected as 1.34 credits on the MCHS transcript
2. 3-credit college course: reflected as 1.0 credit on the MCHS transcript
3. 2-credit college course: reflected as 0.66 credits on the MCHS transcript
4. 1-credit college course: reflected as 0.34 credits on the MCHS transcript

College Transcript: Once a dual enrollment course is taken, the student will also have an official college transcript. To transfer the dual enrollment credit to a different college/university, the student will need to contact the college/university where the dual enrollment course was taken and request an official transcript to be sent to the transferring college/university.

Lancaster County Career and Technical Center

The Lancaster County Career and Technical Center (LCCTC) provides occupationally oriented pathways of study at the Mount Joy, Brownstown, and Willow Street campuses. Students who attend the Career and Technical Center (CTC) will have opportunities for experiential learning in a variety of career fields leading to industry-recognized certifications.

Juniors Attending the LCCTC

Students will be eligible for the half-day programs offered at the LCCTC campuses during their junior year. Students must be in good academic standing to attend the CTC and are still required to meet the course requirements for graduation. Students may need to complete additional credits to meet the graduation requirements by taking online course(s).

Students interested in the CTC will have the opportunity to tour the various LCCTC campuses during their sophomore year of high school. More information on the specific introduction programs can be found on the LCCTC website at: https://lancasterctc.edu/ and at the end of the curriculum guide.

Seniors Attending the LCCTC

Students will be eligible for the full-day programs offered at the LCCTC campuses during their senior year. Students must be in good academic standing to attend the CTC in their senior year. Those students electing to attend the CTC during their senior year of high school will still be required to meet the high school's graduation requirements. As part of the LCCTC curriculum, students will earn their fourth credit of Mathematics and English Language Arts while attending the CTC.

Students interested in the CTC will have the opportunity to tour the various LCCTC campuses during their junior year of high school. More information on the specific program offerings can be found on the LCCTC website at: https://lancasterctc.edu/ and at the end of the curriculum guide.

Online Learning

Manheim Central High School offers a variety of core and elective courses online. Specific online course information can be identified within this curriculum guide. Online courses are designed by the learning format. Students who are interested in online learning options should discuss their educational goals with their parent(s)/guardian(s) as well as their school counselor, and (if applicable) their special education case manager.

There are two approved online learning formats:

- Full-time online students complete all required coursework online and take no traditional coursework offered at the high school. Most full-time online students complete their coursework off-site, however, students may elect to complete their work within the high school at a designated location.
- Part-time students will complete a mixture of both online and traditional coursework. Part-time students may elect to work on their online coursework within the high school at a designated location or at an off-site location with administrative approval pending academic standing and the procedures outlined in the MCHS Supplemental Online Handbook.

Students taking online course(s) will be expected to meet the requirements of the course at the specified due date(s) and will have the same expectations for graduation requirements as students taking traditional coursework. Grades will be awarded using the same guidelines and procedures of traditional coursework.

Post- Secondary Transitions

The Post-Secondary Transitions Program is an experiential learning opportunity for learners to explore their career interests onsite in the workforce industry of their choice. Learners will not only be exposed to their career interest but will also learn invaluable soft skills and employability assets that are required to be successful in the current workforce.

Career Mentoring & Industry Tours Opportunities

Career Mentoring is an ongoing process that begins the discussion of a learner's career and/or education plan after the successful completion of high school. Appointments should be made with the Administrator of Career Exploration.

Industry Tours are an opportunity to learn more about the workforce industry and gain exposure to potential career interests. Tours will be planned intermittently throughout the school year based on learners' interest and the employer's availability.

Internship Program and Service-Work Program

The Internship Program and Service-Work Program placements must be planned prior to the marking period in which the internship or service-work will take place. Learners will meet with the Coordinator of Post-Secondary Transitions to begin the process of planning their experience. Learners do not register for these opportunities during course selection and will choose courses as directed by the guidance office. Once the internship or service-work agreement is completed by the employer, learner, parent/guardian, and school facilitator, the learner's schedule will be modified as necessary.

Class Rank

Method of Calculating and Reporting

- Class rank will be calculated and reported following the end of each semester for students in each grade.
- Foreign exchange students will not be included in class ranking
- Home Education students entering Manheim Central High School after grade 9 will not receive a GPA based upon their home education program (see Board Policy 137)
- Grades earned in courses graded on a Satisfactory/Unsatisfactory, or other non-traditional grading system will not be included in the calculation of Class Rank

- Students who have earned at least a 3.0 weighted grade point average will have the option to choose and take one (1) non-core class in their junior year and two (2) non-core classes (one (1) per semester) in their senior year that will not impact their weighted grade point average. These courses must be taken in a pass/fail option (See Board Policy 214). Requests must be made prior to the start of a course.

Weighted Class Rank Guidelines

- Advanced Placement courses will be given a weight factor 1.3
- College in the High School will be given a weight factor of 1.3
- Honors classes will be given a weight factor of 1.2
- 3rd and 4th level World Languages will be given a weight factor of 1.2
- All other courses will be given a weight factor of 1

Formula for Calculating Weighted Grade Point Average

Each student's weighted grade point average will be computed by using the procedure and formula described below. For the purpose of calculating weighted class rank letter grades earned will be converted to the following numerical equivalents:

Percentage	Grade	Numerical Equivalent
100-94	A	4.0
93-90	A-	3.67
87-89	B+	3.33
83-86	B	3.00
80-82	B-	2.67
77-79	C+	2.33
73-76	C	2.00
70-72	C-	1.67
67-69	D+	1.33

63-66	D	1.00
60-62	D-	0.67
59 and below	F	0.00

A student's weighted grade point average will be calculated by following the bulleted directions below.

- First calculate the quality points for each course a student has taken by using the following formula:
    - Grade (Numerical equivalent) x course credit x weighting factor
    - Example: A grade of "B" earned in a weighted AP course which is worth 1 credit
        - 3 x 1 x 1.3= 3.9 weighted quality points
- Once the quality points are determined for each course, add all the quality points together
- Then divide the total quality points by the number of total credits attempted
- The answer is the student's weighted grade point average

Honor Roll

- **Distinguished Honors:** 4.0 GPA on a 4.0 scale
- **First Honors**: GPA between a 3.9 and 3.5 GPA on a 4.0 scale
- **Second Honors:** GPA between 3.0 and 3.49 on a 4.0 scale

At the end of the marking period, students who earn a D, F or U in any subject will not be eligible for any honor roll for that grading period. Students receiving incomplete grades for a marking period will be considered for Honor Roll distinction only when a grade is submitted to the Guidance Office.

Early Graduation

A student who meets all established graduation requirements may request early graduation from Manheim Central High School. Below is an outline of the procedures for early graduation.

1. Students must apply for early graduation one full semester prior to the requested day of graduation
    a. Early graduation forms can be secured in the high school student services office
2. Completed forms with signatures should be submitted to the student's school counselor.
3. Students and their parent(s)/guardian(s) may meet with their school counselor to discuss post-secondary plans.
4. The principal will make all final decisions.

Schedule Changes

The High School scheduling process strives to balance the need for students to create a learning plan tailored to their educational and life goals while attempting to provide the structure and organization necessary for the efficient operation of the school. Given the high degree of student ownership in designing their schedule, the parameters outlined govern the scheduling process and any requests to alter a schedule once a schedule is finalized.

As such, each student needs to invest adequate time and planning to carefully construct a learning plan best aligned to their individual needs and goals.

- Appropriate Reasons to Request a Scheduling Change:
    - Desire to enroll in a more rigorous academic course/program. A more rigorous course is defined as a student seeking a course at another course weight value.
    - Desire to enroll in an Internship or Dual Enrollment (JR and SR only).
    - Need to change a course based on an academic misplacement as determined by school counselors, teachers, and administration.
- Inappropriate Reasons to Request a Scheduling Change:
    - Desire to take classes with friends.
    - Desire to avoid or have a specific teacher.
- Window for Requesting a Schedule Change:
    - Two scheduling change windows will open before the start of each semester on an annual basis (see calendar dates below). All requests to change a schedule must be completed before the course begins.
        - Schedule Window for First Semester: The Monday and Tuesday of the week before teacher in-service begins.
        - Schedule Window for Second Semester: The last two days of the first semester.
- Process for Requesting a Schedule Change
    - A request for a schedule change begins with students completing a Schedule Change Request Form. This form will be shared on Schoology and the Student Services Website. Request forms will be reviewed by school counselors and the student will be notified if the request has been approved or denied.
- Withdraw/Fail:
    - Students who drop a course after the scheduling deadline will receive a Withdraw/Fail and this will be reflected on transcripts as "WF" and treated as an "F" grade for GPA calculation purposes, as determined by administration.
- Additional Notes:
    - If it is determined that a student is academically misplaced, or an unforeseen circumstance arises, the student or parent/guardian should contact the student's school counselor. The school counselor will consult with a building administrator about the concern.
    - All requests will be individually reviewed.
    - Any schedule change will be honored based on course availability and meeting any specific course prerequisites.
    - The building administration will determine whether a schedule change is warranted.

NCAA Eligibility Center

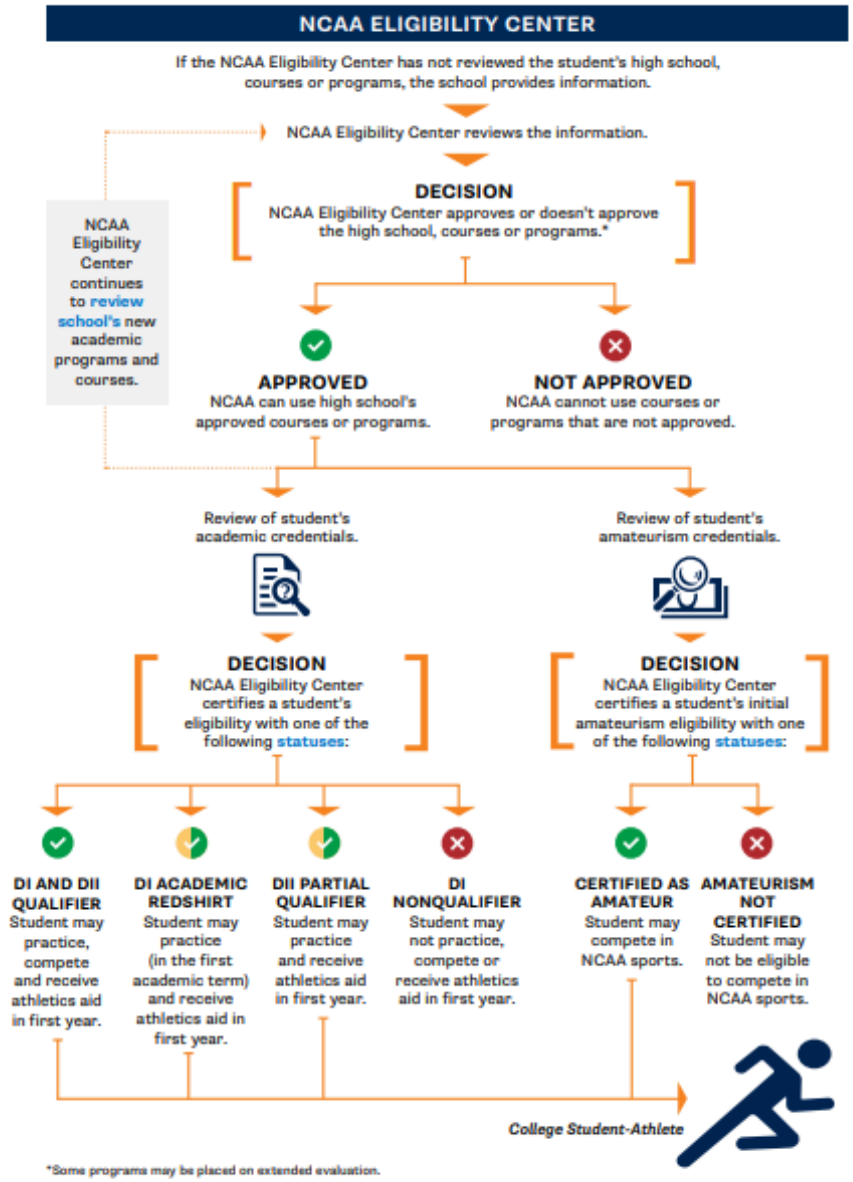
Student-athletes who are considering participating in collegiate athletics should explore the NCAA (National Collegiate Athletic Association) requirements for eligibility. A high school diploma alone is not

sufficient to permit a student to participate in college athletics. The NCAA has a set of minimum standards that students must meet to be eligible. Below is a quick reference sheet taken directly from the NCAA Eligibility Center that outlines the requirements to play at a Division I or Division II College or university. For more detailed information and to register with the NCAA Eligibility Center please visit the following website: https://web3.ncaa.org/ecwr3/. When completing the registration forms, the high school CEEB code is required. Manheim Central High School CEEB Code: 392385.

NCAA INITIAL-ELIGIBILITY PROCESS

This chart presents a general overview to help you, students and their families to better understand the components of the initial-eligibility process. Please see detailed information throughout the rest of the guide to supplement this overview.

An NCAA school recruits students by placing them on its institutional request list, which begins a request for certification from the NCAA Eligibility Center.



*Some programs may be placed on extended evaluation.

**More information regarding the impact of COVID-19 and test scores can be found at on.ncaa.com/COVID19_Spring2023.

GRADE 9

- ☐ Before ninth grade, student registers for a free Profile Page account at eligibilitycenter.org.
- ☐ Student reviews their high school's list of NCAA-approved core courses at eligibilitycenter.org/courselist.

GRADE 10

- ☐ Student transitions Profile Page account to a Certification account when needed.
- ☐ At the end of the year, high school uploads student's official transcript to their Eligibility Center account.

GRADE 11

- ☐ Student checks with high school counselor to ensure they will graduate on time with all required NCAA-approved core courses.
- ☐ Student takes the SAT/ACT, submitting their scores to the NCAA using code **9999**.**
- ☐ At the end of the year, high school uploads student's official transcript to their Eligibility Center account.

GRADE 12

- ☐ Student finishes final NCAA-approved core courses.
- ☐ Student takes the SAT/ACT again, if necessary, submitting their scores to the NCAA using code **9999**.**
- ☐ Beginning April 1, student requests final amateurism certification in their Eligibility Center account.
- ☐ After graduation, high school uploads student's final official transcript with proof of graduation to their Eligibility Center account.

ROLE OF THE STUDENT

Students are responsible for maintaining their academics throughout high school. These tips will help keep them on track for meeting academic initial-eligibility standards.

9th GRADE REGISTER



» *Start planning now!* Take the right courses and earn the best grades possible.

» Find your high school's list of NCAA-approved core courses at **eligibilitycenter.org/courselist**.

» Register for a free Profile Page account at **eligibilitycenter.org** for information on NCAA initial-eligibility requirements.

10th GRADE PLAN



» If you fall behind academically, ask your counselor for help finding approved courses you can take.

» If you are being actively recruited by an NCAA school and have a Profile Page account, **transition** it to a **Certification account**.

» Monitor the task list in your Eligibility Center account for next steps.

» At the end of the school year, ask your counselor from each high school you have attended to upload an official transcript to your Eligibility Center account.

11th GRADE STUDY



» Check with your counselor to make sure you are on track to complete the required number of NCAA-approved **core courses** and graduate on time with your class.

» Take the **SAT/ACT** and submit your scores to the Eligibility Center using code 9999.*

» Ensure your sports participation information is correct in your Eligibility Center account.

» At the end of the school year, ask your counselor from each high school you have attended to upload an official transcript to your Eligibility Center account.

12th GRADE GRADUATE



» Complete your final NCAA-approved **core courses** as you prepare for graduation.

» Take the **SAT/ACT** again, if necessary, and submit your scores to the Eligibility Center using code 9999.*

» Request your final amateurism certification beginning April 1 (fall enrollees) or Oct. 1 (winter/spring enrollees) in your Eligibility Center account at **eligibilitycenter.org**.

» After you graduate, ask your counselor to upload your final official transcript with proof of graduation to your Eligibility Center account.

» ***Reminder:*** Only students on an NCAA Division I or II school's **institutional request list** will receive a certification.

* More information regarding the impact of COVID-19 and test scores can be found at **on.ncaa.com/COVID19_Fall2022**.

CONTACT THE NCAA ELIGIBILITY CENTER

High school support line: 877-622-2321

Hours: 8:30 a.m. to 5:30 p.m. Eastern time

@ncaaec @playcollegesports @ncaaec

NCAA is a trademark of the National Collegiate Athletic Association. October 2021.

DIVISION I ACADEMIC STANDARDS

College-bound student-athletes must meet academic and amateurism standards set by the NCAA membership to compete in Division I or II. At Division III schools, students must meet the admission standards set by the school for all incoming students and amateurism standards set by the NCAA membership.

Division I schools require college-bound student-athletes to meet academic standards for NCAA-approved core courses, core-course GPA and test scores. To be eligible to practice, compete and receive an athletics scholarship in their first full-time year at a Division I school, students must graduate from high school and meet *all* of the following requirements:

1. Complete a total of 16 core courses in the following areas:

ENGLISH	MATH (Algebra I or higher)	NATURAL/ PHYSICAL SCIENCE (Including one year of lab, if offered)	ADDITIONAL (English, math or natural/physical science)	SOCIAL SCIENCE	ADDITIONAL COURSES (Any area listed to the left, foreign language or comparative religion/philosophy)
4 years	3 years	2 years	1 year	2 years	4 years

2. Complete 10 of their 16 core courses, including seven in English, math or natural/physical science, before the start of their **seventh semester**. Once they begin their seventh semester, any course that is needed to meet the 10/7 requirement cannot be replaced or repeated. Students with solely international academic credentials (including Canada) are not required to meet the 10/7 requirement.
3. Complete the 16 NCAA-approved core courses in eight academic semesters or four consecutive academic years from the start of ninth grade. If students graduate from high school early, they still must meet core-course requirements.
4. Earn an SAT combined score or ACT sum score that matches their core-course GPA (minimum 2.3) on the **Division I full-qualifier sliding scale**. More information regarding the impact of COVID-19 and test scores can be found at **on.ncaa.com/COVID19_Spring2023**.
5. Submit proof of graduation to the Eligibility Center.

How to plan your high school courses to meet the 16 core-course requirement: 4 x 4 = 16

9TH GRADE	10TH GRADE	11TH GRADE	12TH GRADE
(1) English	(1) English	(1) English	(1) English
(1) Math	(1) Math	(1) Math	(1) Math
(1) Science	(1) Science	(1) Science	(1) Science
(1) Social Science and/or additional	(1) Social Science and/or additional	(1) Social Science and/or additional	(1) Social Science and/or additional
4 CORE COURSES	4 CORE COURSES	4 CORE COURSES	4 CORE COURSES

SLIDING SCALE FOR DIVISION I

Division I uses a sliding scale to match test scores and core-course GPAs to determine eligibility. The sliding scale balances the student's test score with their core-course GPA. To find more information about test scores, visit ncaa.org/test-scores. More information regarding the impact of COVID-19 and test scores can be found at on.ncaa.com/COVID19_Spring2023.

DIVISION I
FULL QUALIFIER SLIDING SCALE

Core GPA	SAT*	ACT Sum*	Core GPA	SAT*	ACT Sum*
3.550	400	37	2.750	810	59
3.525	410	38	2.725	820	60
3.500	430	39	2.700	830	61
3.475	440	40	2.675	840	61
3.450	460	41	2.650	850	62
3.425	470	41	2.625	860	63
3.400	490	42	2.600	860	64
3.375	500	42	2.575	870	65
3.350	520	43	2.550	880	66
3.325	530	44	2.525	890	67
3.300	550	44	2.500	900	68
3.275	560	45	2.475	910	69
3.250	580	46	2.450	920	70
3.225	590	46	2.425	930	70
3.200	600	47	2.400	940	71
3.175	620	47	2.375	950	72
3.150	630	48	2.350	960	73
3.125	650	49	2.325	970	74
3.100	660	49	2.300	980	75
3.075	680	50	2.299	990	76
3.050	690	50	2.275	990	76
3.025	710	51	2.250	1000	77
3.000	720	52	2.225	1010	78
2.975	730	52	2.200	1020	79
2.950	740	53	2.175	1030	80
2.925	750	53	2.150	1040	81
2.900	750	54	2.125	1050	82
2.875	760	55	2.100	1060	83
2.850	770	56	2.075	1070	84
2.825	780	56	2.050	1080	85
2.800	790	57	2.025	1090	86
2.775	800	58	2.000	1100	86

ACADEMIC REDSHIRT

*Full sliding scale research between the new SAT and ACT is ongoing.

DIVISION II ACADEMIC STANDARDS

Division II schools require college-bound student-athletes to meet academic standards for NCAA-approved core courses, core-course GPA and test scores. More information regarding the impact of COVID-19 and test scores can be found at **on.ncaa.com/COVID19_Spring2023**.

To be eligible to practice, compete and receive an athletics scholarship in their first full-time year at a Division II school, students must graduate from high school and meet *all* the following requirements:

1. Complete 16 core courses in the following areas:



2. Earn an SAT combined score or ACT sum score that matches the student's core-course GPA (minimum 2.200) on the **Division II full-qualifier sliding scale**. More information regarding the impact of COVID-19 and test scores can be found at **on.ncaa.com/COVID19_Spring2023**.
3. Submit proof of graduation to the Eligibility Center.

ACADEMIC CERTIFICATION DECISIONS

To receive an academic certification, students must have on file with the Eligibility Center:

- A **final official transcript** with proof of graduation.
- Official transcripts from *all* other high schools attended.
- Test scores.*
- No open academic tasks.
- Be on a Division II school's **institutional request list**.

*Information regarding the impact of COVID-19 and test scores can be found at **on.ncaa.com/COVID19_Spring2023**.

Being placed on a school's **institutional request list** means the student is being recruited and notifies the NCAA Eligibility Center to complete an academic evaluation for them after all of their required documents have been submitted.

Once an academic certification has been completed, students will receive one of the following decisions if they are being recruited by a Division II school:

Early Academic Qualifier

If students meet specific criteria listed below after six semesters, they may be deemed an early academic qualifier for Division II and may practice, compete and receive an athletics scholarship during their first year of full-time enrollment. Students will need:

Minimum SAT combined score (math and critical reading) of 900 or ACT sum score of 68; and a core-course GPA of 2.5 or higher in a minimum of 14 core courses in the following areas:

- Three years of English.
- Three years of math.
- Two years of natural or physical science.
- Six additional core courses in any area.

SLIDING SCALE FOR DIVISION II

Division II uses a sliding scale to match test scores and core-course GPAs to determine eligibility. The sliding scale balances the student's test score with their core-course GPA. To find more information about test scores, visit ncaa.org/test-scores. More information regarding the impact of COVID-19 and test scores can be found at on.ncaa.com/COVID19_Spring2023.



DIVISION II
FULL QUALIFIER SLIDING SCALE

Core GPA	SAT*	ACT Sum*
3.300 & above	400	37
3.275	410	38
3.250	430	39
3.225	440	40
3.200	460	41
3.175	470	41
3.150	490	42
3.125	500	42
3.100	520	43
3.075	530	44
3.050	550	44
3.025	560	45
3.000	580	46
2.975	590	46
2.950	600	47
2.925	620	47
2.900	630	48
2.875	650	49
2.850	660	49
2.825	680	50
2.800	690	50
2.775	710	51
2.750	720	52
2.725	730	52
2.700	740	53
2.675	750	53
2.650	750	54
2.625	760	55
2.600	770	56
2.575	780	56
2.550	790	57
2.525	800	58
2.500	810	59
2.475	820	60
2.450	830	61
2.425	840	61
2.400	850	62
2.375	860	63
2.350	860	64
2.325	870	65
2.300	880	66
2.275	890	67
2.250	900	68
2.225	910	69
2.200	920	70 & above

*Full sliding scale research between the new SAT and ACT is ongoing.

GRADE-POINT AVERAGE

The NCAA Eligibility Center calculates core-course GPAs based on the grades students earn in NCAA-approved core courses. Only the best grades from the required number of NCAA core courses will be used. This means that the cumulative GPA listed on the student's high school transcript could be different than the NCAA core-course GPA used in their certification. Their core-course GPA is based solely on the grades they received in NCAA-approved core courses. To find your school's NCAA-approved core-course list, visit **eligibilitycenter.org/courselist**.

GPAs are calculated on a 4.000 scale. Numeric grades such as 92 or 87 are converted to letter grades such as A or B. As part of this calculation, each grade received is assigned "quality points," as shown in the scale below. The NCAA Eligibility Center does not use plus or minus grades when calculating a core-course GPA. For example, grades of B+, B and B- each will be worth three quality points. Weighting may be applied to courses whose titles indicate they are honors, AP/IB or advanced (such as Pre-AP/Pre-IB) to improve a student's core-course GPA. However, the high school must **notify** the NCAA Eligibility Center that it weights grades in these classes.

In "Pass/Fail" grading situations, the NCAA Eligibility Center will assign the high school's lowest passing grade for a course in which the student received a "Pass" grade. For most high schools, the lowest passing grade is a D, so the NCAA Eligibility Center generally assigns a D as a passing grade. Information regarding the impact of COVID-19 and Pass/Fail grades can be found at **on.ncaa.com/COVID19_Spring2023**.

CALCULATING A STUDENT'S QUALITY POINTS

In order to determine the quality points earned for each course, multiply the quality points for the grade by the amount of credit earned.

Examples:

- An A grade (4 points) for a trimester course (0.34 units):
  4 points x 0.34 units = 1.36 total quality points
- An A grade (4 points) for a semester course (0.50 units):
  4 points x 0.50 units = 2.00 total quality points
- An A grade (4 points) for a full-year course (1.00 unit):
  4 points x 1.00 units = 4.00 total quality points

Use the worksheets on **pages 27** and **28** to help determine a student's core-course GPA.

QUALITY POINTS

A = 4 points
B = 3 points
C = 2 points
D = 1 point

UNITS OF CREDIT

1 quarter unit = 0.25 units
1 trimester unit = 0.34 units
1 semester unit = 0.50 units
1 year = 1 unit

TEST SCORES

Divisions I and II both require students to have an SAT or ACT score for their certification. Every time students register for the **SAT** or **ACT**, they can use code **9999** to send their scores directly to the NCAA Eligibility Center from the testing agency. Test scores on transcripts will **NOT** be used in a student's academic certification.

A combined SAT score is calculated by adding critical reading and math subscores. An ACT sum score is calculated by adding English, math, reading and science subscores. Students may take the SAT or ACT an unlimited number of times before they enroll full time in college. If students take either test more than once, the best subscores from different tests are used to give them the best possible score. More information regarding the impact of COVID-19 and test scores can be found at **on.ncaa.com/COVID19_Spring2023**.

DIVISION I WORKSHEET

This worksheet is provided to assist your students in monitoring their progress in meeting NCAA initial-eligibility standards. The NCAA Eligibility Center will determine their academic status after they graduate. Encourage them to check their high school's list of NCAA-approved core courses for the classes they have taken or plan to take.

Use the following scale: A = 4 quality points; B = 3 quality points; C = 2 quality points; D = 1 quality point.

ENGLISH (4 YEARS REQUIRED)

10/7	COURSE TITLE	CREDIT	X	GRADE	=	QUALITY POINTS (MULTIPLY CREDIT BY GRADE)
✓	Example: English 9	.50		A		(.5 x 4) = 2
	TOTAL ENGLISH UNITS					TOTAL QUALITY POINTS

MATHEMATICS (3 YEARS REQUIRED)

10/7	COURSE TITLE	CREDIT	X	GRADE	=	QUALITY POINTS (MULTIPLY CREDIT BY GRADE)
✓	Example: Algebra I	1.0		B		(1.0 x 3) = 3
	TOTAL MATHEMATICS UNITS					TOTAL QUALITY POINTS

NATURAL/PHYSICAL SCIENCE (2 YEARS REQUIRED)

10/7	COURSE TITLE	CREDIT	X	GRADE	=	QUALITY POINTS (MULTIPLY CREDIT BY GRADE)
	TOTAL NATURAL/PHYSICAL SCIENCE UNITS					TOTAL QUALITY POINTS

ADDITIONAL YEAR IN ENGLISH, MATHEMATICS OR NATURAL/PHYSICAL SCIENCE (1 YEAR REQUIRED)

10/7	COURSE TITLE	CREDIT	X	GRADE	=	QUALITY POINTS (MULTIPLY CREDIT BY GRADE)
	TOTAL ADDITIONAL UNITS					TOTAL QUALITY POINTS

SOCIAL SCIENCE (2 YEARS REQUIRED)

10/7	COURSE TITLE	CREDIT	X	GRADE	=	QUALITY POINTS (MULTIPLY CREDIT BY GRADE)
	TOTAL SOCIAL SCIENCE UNITS					TOTAL QUALITY POINTS

ADDITIONAL ACADEMIC COURSES (4 YEARS REQUIRED)

10/7	COURSE TITLE	CREDIT		GRADE	=	QUALITY POINTS (MULTIPLY CREDIT BY GRADE)
	TOTAL ADDITIONAL ACADEMIC UNITS					TOTAL QUALITY POINTS

	TOTAL QUALITY POINTS FROM EACH SUBJECT AREA / TOTAL CREDITS = CORE-COURSE GPA		/		=	
		QUALITY POINTS	/	CREDITS	=	CORE-COURSE GPA

Sixteen core courses are required for their core-course GPA. Ten core courses must be completed before the seventh semester; seven of the 10 must be a combination of English, math or natural or physical science.

DIVISION II WORKSHEET

This worksheet is provided to assist your students in monitoring their progress in meeting NCAA initial-eligibility standards. The NCAA Eligibility Center will determine their academic status after they graduate. Encourage them to check their high school's list of NCAA-approved core courses for the classes they have taken or plan to take.

Use the following scale: A = 4 quality points; B = 3 quality points; C = 2 quality points; D = 1 quality point.

ENGLISH (3 YEARS REQUIRED)

COURSE TITLE	CREDIT	X	GRADE	=	QUALITY POINTS (MULTIPLY CREDIT BY GRADE)
Example: English 9	.50		A		(.5 x 4) = 2
TOTAL ENGLISH UNITS					TOTAL QUALITY POINTS

MATHEMATICS (2 YEARS REQUIRED)

COURSE TITLE	CREDIT	X	GRADE	=	QUALITY POINTS (MULTIPLY CREDIT BY GRADE)
Example: Algebra I	1.0		B		(1.0 x 3) = 3
TOTAL MATHEMATICS UNITS					TOTAL QUALITY POINTS

NATURAL/PHYSICAL SCIENCE (2 YEARS REQUIRED)

COURSE TITLE	CREDIT	X	GRADE	=	QUALITY POINTS (MULTIPLY CREDIT BY GRADE)
TOTAL NATURAL/PHYSICAL SCIENCE UNITS					TOTAL QUALITY POINTS

ADDITIONAL YEARS IN ENGLISH, MATHEMATICS OR NATURAL/PHYSICAL SCIENCE (3 YEARS REQUIRED)

COURSE TITLE	CREDIT	X	GRADE	=	QUALITY POINTS (MULTIPLY CREDIT BY GRADE)
TOTAL ADDITIONAL UNITS					TOTAL QUALITY POINTS

SOCIAL SCIENCE (2 YEARS REQUIRED)

COURSE TITLE	CREDIT	X	GRADE	=	QUALITY POINTS (MULTIPLY CREDIT BY GRADE)
TOTAL SOCIAL SCIENCE UNITS					TOTAL QUALITY POINTS

ADDITIONAL ACADEMIC COURSES (4 YEARS REQUIRED)

COURSE TITLE	CREDIT	X	GRADE	=	QUALITY POINTS (MULTIPLY CREDIT BY GRADE)
TOTAL ADDITIONAL ACADEMIC UNITS					TOTAL QUALITY POINTS

TOTAL QUALITY POINTS FROM EACH SUBJECT AREA / TOTAL CREDITS = CORE-COURSE GPA		/		=	
	QUALITY POINTS	/	CREDITS	=	CORE-COURSE GPA

Agriculture

Career and Technical Education Program
Course Listing

Ag Business Foundations Ag Food Science & Safety Ag Sales & Marketing Ag Construction Ag Environment & Natural Resources Greenhouse Management Ag Plumbing, Concrete, and Electrical Beef, Sheep, & Swine Management Dairy, Poultry, & Equine Management Nursery/Landscape	Intro to Ag Welding Advanced Ag Welding Intro to Ag: Production and Mechanics Senior SAE Small Gas Engines Veterinary & Small Animal Science Ag Farm Equipment Agronomy & Soil Science Biotechnology in Ag Diesel Engines in Ag Veterinary Science

1443 Advanced Agricultural Welding

Credit Value: 1	**Prerequisite:** Intro to Agriculture Production and Mechanics OR Introduction to Agriculture Mechanics, Intro to Agricultural Welding
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Other- include this information in the course description.	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: In this course students will build on entry level skills developed in Introduction to Ag Welding including Torch Cutting, Plasma Cutting, Shielded Metal Arc Welding (Stick Welding) and Metal Inert Gas (MIG). Students will also develop skills in TIG and aluminum MIG welding through practice and the producing of their own take home project. The course will emphasize welding safety, proper equipment operation, welding theory and welding practice. Students will pay a $60 course fee which will cover the cost of their project.

1448 Ag Business Foundations

Credit Value: 0.5	**Prerequisite:** Agriculture Mechanics; Intro to Agriculture Science, Introduction to Ag; Production & Mechanics
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is designed to follow the CASE Ag Business curriculum. The main topics for the course are financing and risk management.

1454 Ag Food Science & Safety

Credit Value: 1	**Prerequisite:** Agricultural Science; Introduction to Agriculture: Production & Mechanics
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Activities, projects, and problems that simulate real life situations found in the food science and safety industry will help students develop their content knowledge and technical skills. Students will process different raw ingredients into finished products, and learn a variety of food preservation techniques along the way. They will also learn the chemistry behind major food ingredients.

1423 Ag Sales & Marketing

Credit Value: 0.5	**Prerequisite:** Agricultural Science; Intro to Agriculture: Production & Mechanics (APM)
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Students will create, develop and implement an agribusiness marketing plan. Sales and marketing strategies, risk management and budget analysis will be studied, as well as an analysis of agriculture business structures.

1437 Agricultural Construction

Credit Value: 1	**Prerequisite:** Introduction to Agriculture: Production and Mechanics, Introduction to Agriculture Mechanics
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Other- include this information in the course description.	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is designed to give learners a working knowledge of the building construction industry and the vast career opportunities within the industry. This course will stress safe hand tool and power tool operation through an individual project, as well as the safety protocols of an active work site. The class will construct a storage shed, or similar building, while learning how to develop a bill of materials, read construction prints, construct a wooden structure, install doors/windows, side the structure, and roof the structure.

1449 Agriculture Environment & Natural Resources (AgENR)

Credit Value: 1	**Prerequisite:** Agriculture Science, Introduction to Ag Science; Production & Mechanics (APM)
Course Level: Post-Secondary Preparation	**Department Recommendation:** None

Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Students will learn about the agricultural connections with our natural resources. Students will study the large biome systems to nutrient cycles and the sustainability of our natural resources.

1444 Agriculture Farm Equipment

Credit Value: 0.5	**Prerequisite:** Introduction to Agriculture: Production & Mechanics OR Intro to Agriculture Mechanics
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: In this course students will develop a working knowledge of the Agricultural Equipment Industry. In this class students will learn the various types of farm equipment used in production agriculture. This course will emphasize preventative maintenance, setup and care of farm equipment.

1441 Agriculture Plumbing, Concrete, and Electrical

Credit Value: 0.5	**Prerequisite:** Introduction to Agricultural Production & Mechanics OR Intro to Agricultural Mechanics
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Students will develop a hands on working knowledge of residential wiring, plumbing and masonry. This course will stress electrical code and safety as students wire 120 volt and 240 volt electrical circuits. Students will demonstrate their ability to install PVC, CPVC, Copper, PEX and steel pipe. Students will learn how to finish concrete and lay block.

1459 Agronomy & Soil Science

Credit Value: 0.5	**Prerequisite:** Agriculture Science OR Intro to Agriculture: Production & Mechanics (APM)
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Students will learn about crop and soil management, as it pertains to the agriculture industry.

1452 Beef, Sheep, and Swine Management

Credit Value: 1	**Prerequisite:** Agricultural Science; Introduction to Agriculture: Production & Mechanics
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course covers all aspects of raising and commercially producing Beef, Sheep, Swine, and Market Goats. The students can customize their course work around the species of most interest to them.

1458 Biotechnology in Agriculture

Credit Value: 0.5	**Prerequisite:** Agriculture Science OR Intro to Agriculture: Production & Mechanics (APM) AND 80% or higher in Biology 1
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Students will learn about biotechnology principles as related to the agriculture industry. Studies of genetics, hybridization, and GMOs will be discussed and explored through hands-on activities.

1450 Dairy, Poultry, & Equine Management

Credit Value: 1	**Prerequisite:** Agricultural Science; Introduction to Agriculture: Production & Mechanics
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course covers all aspects of raising and commercially producing Dairy Cattle, Chickens, and Horses. The students can customize their course work around the species of most interest to them.

1447 Diesel Engines in Ag

Credit Value: 0.5	**Prerequisite:** Introduction to Agriculture: Production & Mechanics
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Other- include this information in the course description.	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Students will learn the theory and repair of how a diesel engine functions. Students will learn preventative maintenance, troubleshooting, and precision measuring through hands-on activities.

1455 Greenhouse Management

Credit Value: 1	**Prerequisite:** Agriculture Science OR Intro to Agriculture: Production & Mechanics (APM)
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th

Course Weight: 1	**Learning Format:** Traditional

Course Description: Students will manage the greenhouse to learn about the process of planting, growing, marketing and selling plants. Basic industry terminology and pest management practices will be embedded throughout the course. Students will be active participants in all phases of the management and growing processes.

1442 Introduction to Agricultural Welding

Credit Value: 0.5	**Prerequisite:** Introduction to Agriculture; Production & Mechanics OR Introduction to Agriculture Mechanics
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Other- include this information in the course description.	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: In this course students will develop entry level skills in Torch Cutting, Plasma Cutting, Shielded Metal Arc Welding (Stick Welding) and Metal Inert Gas (MIG) through practice and the production of their own take home project. The course will emphasize welding safety, proper equipment operation, welding theory and welding practice. Students will pay a $40 course fee which will cover the cost of their project.

1434 Introduction to Agriculture: Production & Mechanics

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: In this course students will be introduced to the Agriculture industry, including plants, animals, natural resources, agribusiness, and mechanics. Leadership and teambuilding skills will be emphasized in all activities. This introductory course is required prior to taking any other Ag electives.

14340 Introduction to Agriculture: Production & Mechanics

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Online

Course Description: In this course students will be introduced to the Agriculture industry, including plants, animals, natural resources, agribusiness, and mechanics. Leadership and teambuilding skills will be emphasized in all activities. This introductory course is required prior to taking any other Ag electives.

1456 Nursery/Landscape

Credit Value: 1	**Prerequisite:** Agriculture Science OR Intro to Agriculture: Production & Mechanics (APM)
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Other- include this information in the course description.	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Students will explore landscape design and nursery management. Pesticide certification is included with the course. Emphasis will be placed on practical application of skills and knowledge with projects and hands-on experiences. Students will be expected to pay for the Pesticide Certification which is currently $50.

1464 Senior SAE, Fall Semester

Credit Value: 2	**Prerequisite:** See Course Description
Course Level: Post-Secondary Preparation	**Department Recommendation:** Must have completed 2.5 credits of Agriculture Education courses by the conclusion of their junior year.
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 12th

Course Weight: 1	**Learning Format:** Release from school a maximum of 2 blocks per day.

Course Description: Students must have completed 2.5 credits of Agriculture courses with a "C" or better, and have secured a placement in the Agriculture industry in order to be eligible for this school-release program. The student must complete a record book documenting hours worked, skills attained, and payment received (if applicable.) An employer evaluation will be submitted each quarter, and will make up 50% of the student's grade in this course.

1465 Senior SAE, Spring Semester

Credit Value: 2	**Prerequisite:** See course description.
Course Level: Post-Secondary Preparation	**Department Recommendation:** Must have completed 2.5 credits of Agriculture Education courses by the conclusion of their junior year.
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 12th
Course Weight: 1	**Learning Format:** Release from school for a maximum of 2 blocks per day.

Course Description: Students must have completed 2.5 credits of Agriculture courses with a "C" or better, and have secured a placement in the Agriculture industry in order to be eligible for this school-release program. The student must complete a record book documenting hours worked, skills attained, and payment received (if applicable.) An employer evaluation will be submitted each quarter, and will make up 50% of the student's grade in this course.

1433 Small Gas Engines

Credit Value: 1	**Prerequisite:** Introduction to Agriculture: Production & Mechanics (APM); OR Introduction to Ag Mechanics
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Other- include this information in the course description.	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Students in this course will develop a practical working knowledge of engines used in the lawn and garden industry and receive several Briggs and Stratton certifications. The course will cover

preventative maintenance, 4 stroke theory, 2 stroke theory, engine teardown, precision measuring, engine rebuild and troubleshooting. Students will have to pay for materials needed to rebuild their own engine.

1457 Veterinary & Small Animal Science

Credit Value: 1	**Prerequisite:** Agricultural Science; Introduction to Agriculture: Production & Mechanics; or Biology
Course Level: Post-Secondary Preparation	**Department Recommendation:** 80% or higher in Biology
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course will instruct the student in veterinary terminology and technical skills, and well as anatomy and physiology of both small and large animal species.

14010 Veterinary Science

Credit Value: 0.5	**Prerequisite:** Agricultural Science; Introduction to Agriculture: Production & Mechanics; or Biology
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Online

Course Description: This course will instruct the student in veterinary terminology and biosecurity, and well as anatomy and physiology of both small and large animal species. This is a condensed version of the in-house Veterinary and Small Animal Science course, and should not be selected by students who have already completed the in-house course.

Art

Course Listing and Sequence

*All courses denoted with an * fulfill the Arts and Humanities graduation requirement.*
*Courses denoted with ** will potentially be offered on a rotation and may not be available every academic year.*

Level	Two-Dimensional Art	Three-Dimensional Art	Online
Introductory Level	*Drawing and Painting 1 *3D Art 1	*Ceramics & Sculpture 1	*Art in World Cultures+
Intermediate Level	*Drawing and Painting 2 *3D Art 2	*Ceramics & Sculpture 2	
Advanced Level	*Advanced Art Portfolio, Fall *Advanced Art Portfolio, Spring	*Advanced Ceramics & Sculpture, Fall Advanced Ceramics & Sculpture, Spring	

0738 3D Art 1

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:**
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: In this 3D sculpture course, students will explore the world of three-dimensional art through recycled materials and techniques. Students will learn to express their creativity by designing and constructing sculptures, gaining hands-on experience in building and assembling different mediums.

0739 3D Art 2

Credit Value: 0.5	**Prerequisite:** 3D Art 1
Course Level: Post-Secondary Preparation	**Department Recommendation:** 80% or higher in Prerequisite
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: In the 3D Art 2 course, students will delve deeper into the realm of three-dimensional art, building upon the skills acquired in the introductory course. They will be challenged with more complex projects, exploring advanced techniques and materials to create sculptures. *3D Art 1 is a prerequisite to this course.

0763 Advanced Art Portfolio, Fall

Credit Value: 0.5	**Prerequisite:** Drawing and Painting 2, 3, 4, 5 or Digital Illustration, or Computer Art 2, 3, 4, 5 or Computer Art-Animation
Course Level: Post-Secondary Preparation	**Department Recommendation:** 80% or higher in Prerequisite
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course provides an opportunity for advanced art students to develop a body of work and further their artistic abilities and interests. There will be a strong focus on personal style development and individual artistic growth. Work produced in this class will help students work towards developing an art portfolio for college or a possible career in the visual arts.

0764 Advanced Art Portfolio, Spring

Credit Value: 0.5	**Prerequisite:** Drawing and Painting 2, 3, 4, 5 or Digital Illustration, or Computer Art 2, 3, 4, 5 or Computer Art-Animation
Course Level: Post-Secondary Preparation	**Department Recommendation:** 80% or higher in Prerequisite

Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course provides an opportunity for advanced art students to develop a body of work and further their artistic abilities and interests. There will be a strong focus on personal style development and individual artistic growth. Work produced in this class will help students work towards developing an art portfolio for college or a possible career in the visual arts.

0761 Advanced Ceramics and Sculpture, Fall

Credit Value: 0.5	**Prerequisite:** Ceramics and Sculpture 2, Ceramics 2, or Sculpture 2
Course Level: Post-Secondary Preparation	**Department Recommendation:** 80% or higher in Prerequisite
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is based on personalized studio work and is for the student who wants to develop their visual repertoire by working in three-dimensional shape and form. Students will have the freedom to structure their course work based on their individual interests and possible career paths. Writing and research are integral components of the creative process and will be stressed as necessary course work towards making informed creative decisions.

0762 Advanced Ceramics and Sculpture, Spring

Credit Value: 0.5	**Prerequisite:** Ceramics and Sculpture 2, Ceramics 2, or Sculpture 2
Course Level: Post-Secondary Preparation	**Department Recommendation:** 80% or higher in Prerequisite
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is based on personalized studio work and is for the student who wants to develop their visual repertoire by working in three-dimensional shape and form. Students will have the freedom to structure their course work based on their individual interests and possible career paths. Writing and research

are integral components of the creative process and will be stressed as necessary course work towards making informed creative decisions.

0799T Art in World Cultures+

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Online

Course Description: Who is the greatest artist of all time? Is it Leonardo DaVinci? Claude Monet? Michelangelo? Pablo Picasso? Is the greatest artist of all time someone whose name has been lost to history? You will learn about some of the greatest artists while also creating art of your own, including digital art. We will explore the basic principles and elements of art, learn how to critique art, and examine some of the traditional art of the Americas, Africa, and Oceania in addition to the development of Western art. Notes: Students will have to create an art piece (either a drawing or painting which also requires students to have supplies) and then photograph the piece and upload it as an assignment.

0732 Ceramics and Sculpture 1

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Students will create projects from clay that include techniques such as hand building, sculpting, and throwing on the wheel. The course will contain projects made in functional and non-functional forms. This course emphasizes experimentation in basic form, while recognizing the importance of imagination and self-expression.

0744 Ceramics and Sculpture 2

Credit Value: 0.5	**Prerequisite:** Ceramics and Sculpture 1, Ceramics 1, or Sculpture 1
Course Level: Post-Secondary Preparation	**Department Recommendation:** 80% or higher in Prerequisite
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is based on intensive personalized studio work and is for the student who finds success working with clay. Students will create projects that include techniques such as hand building, drape, and press molding, slip decoration and throwing on the wheel. This course will contain projects made in functional and non-functional forms.

0724 Drawing and Painting 1

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course provides an overview of a variety of techniques, styles, and mediums in two-dimensional art. Work will be done from still life objects, models, and reference photographs. The course will emphasize observational drawing and painting skills, while recognizing the importance of imagination and self-expression.

0725 Drawing and Painting 2

Credit Value: 0.5	**Prerequisite:** Drawing and Painting 1
Course Level: Post-Secondary Preparation	**Department Recommendation:** 80% or higher in Prerequisite

Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is designed for students who found success in Drawing and Painting 1 and would like to explore advanced techniques, styles, and media in two-dimensional art. Work will continue to be done from actual objects, still life, models, and reference photographs, while stressing the importance of imagination and self-expression. Writing and research are integral components of the creative process and will be stressed as necessary course work towards making informed creative decisions.

Business Education

Course Listing

Careers & Your Money CHS Entrepreneurship Entrepreneurship	Introduction to Business Sports Marketing & Management Stock Marketing Investing

0842 Careers and Your Money

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Students will engage in a variety of career exploration activities to evaluate career opportunities. In addition to that, learning about how pay is received, taxed, and subsequently managed is an important part of living in the adult world. Therefore, topics such as budgeting, housing, banking, credit (consumer law), and taxes will be covered.

0813 College in the High School Entrepreneurship

Credit Value: 1	**Prerequisite:** None
Course Level: College in the High School	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1.3	**Learning Format:**

Course Description: This course is run through the CHS (College in High School) program through the University of Delaware, but taught by MCHS faculty. UD grades earned in CHS courses appear on an official UD transcript, and the course credits are eligible for transfer to other colleges and universities. Students electing not to take this as a CHS course will have Entrepreneurship reflected on their transcript.

0816 Entrepreneurship

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is designed to provide an understanding of how to create and manage a small business. Several computer simulations are used to master entrepreneurial skills. Additionally, students will research, plan, and market a product with proceeds distributed to charitable organizations.

0808 Introduction to Business

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course will serve as an introduction to the exciting and challenging world of business and will serve as a foundation for other business courses. Other areas that will be addressed will include: how businesses are organized, how products are marketed and how small businesses operate. Knowledge of these topics will allow students to better understand how they fit into the world marketplace, their future employment and perhaps even business ownership.

0840 Sports Marketing and Management

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course introduces the student to the concepts of marketing products and services to consumers in the sports industry. Along with understanding the basic principles of marketing and management,

students will use computer simulations to practice acquired skills. Additionally, students will promote a current Manheim Central athletic team by applying knowledge to execute a Baron Nation event.

0828 Stock Marketing Investing

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course will provide the foundation for investing in the stock market. Students will learn the fundamentals of investing which include stock screening techniques, company research, and risk analysis. Computer-based simulation will be used to practice investing knowledge.

Computer Science

Course Listing

Level	Course
Introductory Level	Creating with Code
Intermediate Level	Game Development Robotics Web Coding
Advanced Level	CHS Web Design and Development

0930 Creating with Code

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Designed to be the introductory course for students interested in exploring computer science related careers. Students will rotate through three modules in this course designed to give a taste of what can be created with different types of code . Robotics, explores programming by using the Mindstorm EV3 to control student model robots. . These modules will prepare students (prerequisite) to participate in the next tier of creative hands-on computer / computer science / coding classes.

0934 Game Development

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** 80% in Creating with Code (Computers)
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th

Course Weight: 1	**Learning Format:** Traditional

Course Description: In this course, students will use Unity to learn the fundamentals of programming in the context of creating their own gaming projects. During the course, students will create several prototypes, manage a larger personal project, and complete challenges and quizzes along the way. The skills in this course provide a foundational understanding of Unity and C# programming.

0932 Robotics

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** 80% in Creating with Code (Computers)
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This is a beginning course in robotics. This course will be utilizing the LEGO® MINDSTORMS® Education EV3 Base Set and software, students will explore the exciting world of robotics! The objective of this course is to introduce the student to basic programming as well as problem solving strategies. Combining the versatility of the LEGO® building system, a powerful microcomputer brick, and intuitive drag-and-drop programming software, will allow students to work on programing the robot to perform tasks as navigating through a maze, interact with the environment using sensors, and performing sorting tasks using a robotic claw.

0920 Web Coding

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** 80% in Creating with Code (Computers)
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is designed to familiarize students with the creation and management of web sites. Students will learn basic HTML structure, CSS formatting, and JavaScript coding for web site creation. Students will also learn how to create text and graphics for the web using Adobe Illustrator. Students will be required to write several pages of content and create images for use on their website.

0921 College in the High School Web Site Design and Development 0134

Credit Value: 0.5	**Prerequisite:** None
Course Level: College in the High School	**Department Recommendation:** 80% in Creating with Code (Computers)
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: This college in the high school course provides a comprehensive introduction to the fundamental technologies and professional workflows used in modern web development. The curriculum focuses on the "client-side" of the web. Students will master HTML5 for content structure and CSS3 for visual design, while exploring the principles of Responsive Web Design (RWD) to ensure compatibility across mobile, tablet, and desktop devices. Beyond coding, the course emphasizes industry-standard practices, including semantic markup, accessibility (a11y), and professional debugging using Browser Developer Tools. The course culminates in a professional capstone project where students design, code, and publish a multi-page personal website. Additional outside of class readings and activities, quizzes, and tests, and website requirements must be completed to earn college credit.

English Language Arts

Course Listing and Sequence

Please note this is a suggested sequence of courses and students may choose to take more than one English Language Arts course in a school year.

Level	9th Grade	10th Grade	11th Grade	12th Grade
AP / Honors	Honors 9th Grade Language Arts	Honors 10th Grade Language Arts ** AP Seminar	AP English Language & Composition AP English Literature & Composition AP Research AP Seminar	AP English Language & Composition AP English Literature & Composition AP Research AP Seminar
Post-Secondary Preparation	9th Grade Language Arts	10th Grade Language Arts	*American Literature *Conflict Literature *Journeys in Mythology *Sports Literature *The Power of Written Expression *Communications for Career *Communications for College *Public Speaking	

0229 10th Grade Language Arts

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course challenges college-bound students to attain mastery level in the areas of reading, writing, speaking, and listening. Emphasis is placed on building strategies for analyzing increasingly difficult print and non-print text and for creating a variety of formal and informal written and oral responses to those texts with increasing depth, style, and sophistication. Writing workshops address all matters of composition (clarity, voice, sentence structure, diction, usage, grammar, and punctuation) to prepare students for complex writing tasks, like a major research paper, frequent reading and writing assignments, and the Keystone Literature Exam. Summer reading is required.

0229O 10th Grade Language Arts

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th
Course Weight: 1	**Learning Format:** Online

Course Description: This online course challenges college-bound students to attain mastery level in the areas of reading, writing, speaking, and listening. Emphasis is placed on building strategies for analyzing increasingly difficult print and non-print text and for creating a variety of formal and informal written and oral responses to those texts with increasing depth, style, and sophistication. Writing workshops address all matters of composition (clarity, voice, sentence structure, diction, usage, grammar, and punctuation) to prepare students for complex writing tasks, like a major research paper, frequent reading and writing assignments, and the Keystone Literature Exam. Summer reading is required.

0209 9th Grade Language Arts

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th

Course Weight: 1	**Learning Format:** Traditional

Course Description: This course begins with a comprehensive focus on the writing progress through instruction on grammatical skills and review sequence, as well as extensive vocabulary study. The primary objective of the literature program is for students to understand and appreciate literary style and convention, both through student composition and analysis of the short story, novel, poetry, drama, and informational texts. Speaking skills are reinforced through classroom discussions and oral reports, and a summer reading is required.

02090 9th Grade Language Arts

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th
Course Weight: 1	**Learning Format:** Online

Course Description: This self-paced online study emphasizes developing analytical reading and writing skills needed for success in high school; learners will read short stories, poetry, novels, and Shakespeare's Romeo and Juliet, as well as informational pieces. The course highlights conducting authentic research projects, such as podcasts, and developing writing style through practical exercises focused on mentor texts. Summer reading is required.

2100 Academic Language Acquisition, Fall A: ESL

Credit Value: 1	**Prerequisite:** Teacher referral
Course Level: Proficiency Level 1-2	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is intended for English Language Learners who are acquiring English Language Proficiency. Academic Language Acquisition develops the language needed to be successful in content area classes. Content texts will be used to teach essential grammar, vocabulary, spelling and to promote listening, speaking, reading and writing skills. ELLs will be scheduled for a regular English class in addition to this class.

2101 Academic Language Acquisition, Spring A: ESL

Credit Value: 1	**Prerequisite:** None
Course Level: Proficiency Level 1-2	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is intended for English Language Learners who are acquiring English Language Proficiency. Academic Language Acquisition develops the language needed to be successful in content area classes. Content texts will be used to teach essential grammar, vocabulary, spelling and to promote listening, speaking, reading and writing skills. ELLs will be scheduled for a regular English class in addition to this class.

0293 Advanced Placement English Language and Composition

Credit Value: 1	**Prerequisite:** None
Course Level: Advanced Placement	**Department Recommendation:** 80% or higher in Honors 10th Grade Language Arts or teacher recommendation
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: This rigorous college-level course engages students in analysis of nonfiction from a variety of periods, disciplines, and rhetorical contexts in order to develop awareness of how writers use language and structure to communicate their purposes. Moreover, it is geared toward transforming students into skilled writers who compose for a variety of purposes. This course prepares students to take the AP English Language and Composition exam.

0292 Advanced Placement English Literature and Composition

Credit Value: 1	**Prerequisite:** None
Course Level: Advanced Placement	**Department Recommendation:** 80% or higher in Honors 10th Grade Language Arts or teacher recommendation
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th

Course Weight: 1.3	**Learning Format:** Traditional

Course Description: Reflecting college-level study, this course focuses on analysis of literature from a variety of genres, cultures, and historical periods. Students will develop thinking processes to critically study literature for deeper meaning and connection to life. This course prepares students to take the AP Literature and Composition exam.

0258 Advanced Placement Research

Credit Value: 1.5	**Prerequisite:** Advanced Placement Seminar
Course Level: Advanced Placement	**Department Recommendation:** 80% or higher in Honors 10th Grade Language Arts or teacher recommendation
Course Fee: Advanced Placement Seminar	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: None	**Learning Format:** Traditional

Course Description: Learners will expand on what they learned in AP Seminar to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, they will design, plan, and conduct an investigation to address a research question by analyzing scholarly sources and evidence, apply context and perspective, write a college-level academic paper, and present their research findings to an audience.

0247 Advanced Placement Seminar

Credit Value: 1	**Prerequisite:** None
Course Level: Advanced Placement	**Department Recommendation:** 80% or higher in Honors 10th Grade Language Arts or teacher recommendation
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: Encourages learners to demonstrate critical thinking, collaboration, and academic research skills while investigating a variety of subject areas, write research-based essays, and view issues from multiple perspectives of stakeholders to craft arguments based upon scholarly evidence. Students will design and give presentations both individually and as part of a team, complete two performance tasks and, optionally, an end-of-course AP Exam which has the potential to reward the learner college credit. AP Seminar is the first course toward a student earning an AP Capstone Degree.

0217 American Literature

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Students will study American Literature from the oral traditions of indigenous peoples to present day in varied forms including novel, drama, poetry, short story, essay, and non-fiction. This course also includes systematic vocabulary study. Summer reading is required.

0217O American Literature Online

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1	**Learning Format:** Online

Course Description: Students will study American Literature from the oral traditions of indigenous peoples to present day in varied forms including novel, drama, poetry, short story, essay, and non-fiction. This course also includes systematic vocabulary study. Summer reading is required.

0260 Communications for Career

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This practical course equips learners with the essential professional literacy and communication skills needed for immediate success in trades, industry, manufacturing, and technical workplaces. Designed for students transitioning directly into the workforce or pursuing internships/apprenticeships, the course emphasizes clear, precise, and professional communication in

real-world job settings. Students will develop confidence in technical writing, workplace verbal communication, and collaborative interpersonal skills

0262 Communications for College

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This communication course is specifically designed for juniors and seniors preparing to navigate the demanding world of college applications and post-secondary academic life. Students will develop essential skills in professional, academic, and personal communication required for success in higher education, including crafting compelling college essays, building strong professional branding, writing effective academic correspondence, and performing confidently in high-stakes interviews.

0273 Conflict Literature

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: In this course, students will study literature based on global conflicts with an emphasis on learning about different cultures. An independent research project is required.

0205 Honors 9th Grade Language Arts

Credit Value: 1	**Prerequisite:** None
Course Level: Honors	**Department Recommendation:** Teacher Recommendation
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th
Course Weight: 1.2	**Learning Format:** Traditional

Course Description: For the motivated independent student, this course challenges college-bound students to reach beyond mastery level and prepares them for AP and college-level courses. The course includes composition assignments requiring interpretive and applied levels of response to literature, which includes short stories, the novel, poetry, and Shakespeare's Romeo and Juliet, as well as readings in informational texts. Summer reading is required.

0231 Journeys in Mythology

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: In this course students will explore a variety of myths from around the world to understand unity of cultures through common stories. Included is discussion of archetypes and the hero's journey, as well as the relevance of mythology in contemporary life.

0264 Public Speaking

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is designed to help students develop the essential skills needed to organize thoughts clearly, speak persuasively to diverse audiences, and deliver powerful presentations with strong verbal and nonverbal presence.

0275 Sports Literature

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th

Course Weight: 1	**Learning Format:** Traditional

Course Description: This course explores the undeniable power and influence of sports on society through the study of sports literature, including major works. Other genres are explored with an emphasis on the role of literature in documenting, commentating, and making meaning of sports and culture.

0285 The Power of Written Expression

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: The Power of Written Expression is a literature-based course that focuses on the study of writing as an art form with a research component. Students will learn techniques and strategies to develop their writing through a variety of expressive pieces, using mentor texts and writers' journals as models, while participating in a collaborative writing community. Students will analyze writing as inspiration for and response to political change, and they will explore ways in which artful writing pushes the boundaries of standard language. Summer reading is required.

Family and Consumer Sciences

Course Listing

*All courses denoted with an * fulfill a graduation requirement.*

Early Childhood / Elementary Education	Culinary Arts
Child Care & Development	Fundamental of Foods
Preschool Laboratory	American Cuisine
	Cooking Lite and Easy
	Baking & Pastry Arts

1115 American Cuisine

Credit Value: 0.5	**Prerequisite:** Fundamentals of Food
Course Level: Post-Secondary Preparation	**Department Recommendation:** 70% or higher in Fundamentals of Food
Course Fee: None	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: In this course learners will create "Made in America" cuisines. Students will cultivate cooking and food preparation skills during the foundational units of yeast bread, pasta and rice, and the seven regional cuisines of America. Meal planning, appeal, and food processing will be evaluated as students complete a final food competition.

1118 Baking & Pastry Arts

Credit Value: 0.5	**Prerequisite:** Fundamentals of Food
Course Level: Post-Secondary Preparation	**Department Recommendation:** 70% or higher in Fundamentals of Food
Course Fee: None	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Do you have a passion for creating sweet treats? The Baking and Pastry Arts course introduces students to the fundamental techniques, skills, and knowledge required to create successful baking and pastry. This course allows you to develop real-world skills to be impressive at home or take your first step towards a culinary career.

1122 Child Care and Development

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: In this course learners create developmentally appropriate learning experiences for preschool children who attend Little Barons' Preschool. Anyone interested in a career as a teacher, psychologist, nurse, or caregiver should consider this course. The course will include a six-week hands-on preschool lab that applies knowledge of brain development and child development theories.

1117 Cooking Lite & Easy

Credit Value: 0.5	**Prerequisite:** Fundamentals of Food
Course Level: Post-Secondary Preparation	**Department Recommendation:** 70% or higher in Fundamentals of Food
Course Fee: None	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th

Course Weight: 1	**Learning Format:** Traditional

Course Description: Do you have a busy lifestyle? Is it a challenge to prepare healthy foods? This course is designed to teach "lite" and quick cooking techniques through healthy nutrition. Students will prepare snacks and meals as they learn to modify recipes the "lite" way without sacrificing flavor. Discover tips on grocery shopping and how to dine out while eating healthy too. The microwave oven and other time saving kitchen equipment will be used. At the completion of this course, the term "fast food" will take on a whole new meaning.

1114 Fundamentals of Foods

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: None	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is designed as an introduction to food preparation skills and consumer skills. Emphasis is placed on the use of correct equipment, techniques, safety & sanitation in the kitchen. Food preparation techniques will be taught through demonstration and student experiences in food laboratory. This course is a prerequisite to all foods related courses within the FCS Department.

1124 Preschool Laboratory

Credit Value: 0.5	**Prerequisite:** Child Care and Development
Course Level: Post-Secondary Preparation	**Department Recommendation:** 80 % or higher in Child Care and Development
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is strongly recommended for students pursuing a career in Early Childhood Education, Elementary Education or parenting. Preschool Lab provides the opportunities to plan and coordinate a preschool lab space nestled within our high school FCS Department. A digital portfolio incorporating the Child Development Associate (CDA) competency areas, observations, and advanced levels of lesson planning development can be used as resume builders and evidence for future plans in the field.

Health and Fitness
Course Listing

Adaptive Physical Education Advanced Weight Training Lifetime Recreation Fitness for Life 1 Fitness for Life 2	Health Introduction to Sports Medicine Introduction to Weight Training Individual & Dual Activities Outdoor Education Personal Fitness

0322 Adaptive Physical Education

Credit Value: 0.5	**Prerequisite:** Doctor's Note
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This Course is designed to meet the individual needs of students in the area of personal fitness and conditioning. Students with specific limitations work through a fitness program that is individualized for their own personal needs. A doctor's note is required for entry into this course.

0328/0329 Advanced Weight Training

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** Any Introductory Physical Education Class.
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: The Advanced Weight Training course is designed for experienced lifters who want to refine technique, maximize strength and hypertrophy, and train with a higher level of purpose and precision. Building on foundational resistance training principles, this course emphasizes advanced programming strategies and performance-based goal setting. Participants will engage in structured, progressive training that includes complex lifts, advanced variations, and intensity techniques such as periodization, supersets, tempo

manipulation, and load management. Proper form, injury prevention, mobility, and recovery strategies are reinforced to support long-term athletic development. By the end of the course, students will be able to design and implement individualized training programs, safely perform advanced lifts, analyze performance outcomes, and apply training principles to enhance strength, power, muscular endurance, and overall physical performance. This course is ideal for athletes, fitness enthusiasts, and individuals pursuing higher-level strength and conditioning knowledge.

03430 Fitness for Life 1

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Online

Course Description: This Fitness course is all about the latest ways to lead an active, healthy life. The course focuses on helping students establish healthier lifestyles and understanding the close relationship between physical activity and overall health. At the end of this course, students have a knowledge of and appreciation for fitness and its impact on everyone. Students enrolled in this course will use activity trackers to report weekly activity requirements.

03490 Fitness For Life 2

Credit Value: 0.5	**Prerequisite:** Fitness For Life 1
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Online

Course Description: This Fitness course builds on the information and skills developed in Fitness For Life I. Emphasis is placed on continuing to develop personal fitness habits. Additionally, students will examine a variety of concepts necessary to further enhance all aspects of their personal wellness and fitness. Students enrolled in this course will use activity trackers to report weekly activity requirements

0310 Health

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th
Course Weight: 1	**Learning Format:** Traditional

Course Description: In this course, students will learn, study, and evaluate current health topics. The primary goal of this course is for each student to become health literate. Topics of study include: physical fitness and wellness; diseases and disorders as they relate to the body systems; human sexuality and related diseases; drug and chemical abuse; and current safety issues. Health Education is a required course for graduation.

0342 Individual/Dual Activities

Credit Value: 0.5	**Prerequisite:**
Course Level: No Level	**Department Recommendation:**
Course Fee: Not Applicable	**Course is for Students in Grade(s):**
Course Weight: 1	**Learning Format:** Traditional

Course Description: This is a fitness-based course with a concentration on games and activities in an individual or paired setting. The course will provide students with the opportunity to learn and participate in various recreational activities. Activities may include, but are not limited to, archery, golf, badminton, bocce, bowling, horseshoes, tennis, disc golf, pickle ball and speedminton. The goal is for students to learn the rules of each activity and develop the necessary skills to encourage a lifestyle of activity and recreational involvement. Daily fitness components will be included throughout the course, as well as fitness pre- and post-tests.

0311 Intro to Sports Medicine

Credit Value: 0.5	**Prerequisite:** Health
Course Level: Post-Secondary Preparation	**Department Recommendation:** 80% or above in Health
Course Fee: Other- include this information in the course description.	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course will provide students with an introduction to the field of Sports Medicine and Athletic Training. Topics will include the historical and career aspects of the field; basic anatomy and physiology; the injury process; wound care techniques; emergency response and care; taping and splinting techniques; and injury prevention.

0327 Introduction to Weight Training

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: The course is an introduction to weight training that covers basic principles of strength training, proper exercise techniques, use of free weights and machines, and fundamental program design. Emphasis is placed on correct form, injury prevention, physical fitness assessment, and the development of lifelong fitness habits.

0334 Lifetime Recreation

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Lifetime Recreation is a fitness-based course designed to promote lifelong physical activity through participation in recreational, leisure, and fitness-based activities. The course emphasizes fitness, wellness, enjoyment, and skill development. Students explore a variety of individual and group activities that can be continued throughout adulthood, encouraging healthy lifestyle habits, stress management, and social interaction.

0310O Online Health

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th
Course Weight: 1	**Learning Format:** Online

Course Description: In this course, students will learn, study, and evaluate current health topics. The primary goal of this course is for each student to become health literate. Topics of study include: physical fitness and wellness; diseases and disorders as they relate to the body systems; human sexuality and related diseases; drug and chemical abuse; and current safety issues. Health Education is a required course for graduation.

336 Outdoor Education

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This is a fitness-based course with a concentration on adventure-based education activities. The course will provide guided practice in the skills of communication, leadership and problem solving. Students who select this course must be willing to engage in a course centered around group cooperation and the ability to work as a team due to the course's heavy emphasis on teambuilding, building relationships and camaraderie. Specific activities may include group initiatives, low ropes elements, orienteering, disc golf and archery. The course culminates in a field trip that allows students to utilize their skills in a series of adventure-based activities and apparatus. Field trip costs will be approximately $35.00. Daily fitness components will be included throughout the course, as well as fitness pre- and post-tests.

344 Personal Fitness

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th

Course Weight: 1	**Learning Format:** Traditional
Course Description: This is a student-centered course designed to provide learners with the knowledge and practical skills needed to develop and maintain personal fitness and overall wellness. The course covers physical fitness components, exercise principles, mental health, and healthy lifestyle habits. Learners will participate in physical activities and personal fitness planning to support lifelong health.	

Mathematics

Course Listing and Sequence

Please note that students should take sequentially Algebra I, followed by Geometry, and Algebra II before taking any additional math courses. It is important to note that more than one math course may be taken in a school year.

Level	9th Grade	10th Grade	11th Grade	12th Grade
AP / Honors	Honors Geometry	Honors Algebra II	Honors Pre-Calculus	AP Calculus AB / CHS Math 220 Calculus 1 AP Calculus BC / CHS Math 220 Calculus 1 AP Statistics/CHS Math 280 Introductory Statistics
Post-Secondary Preparation	Algebra I Algebra I Part 1* Geometry **	Geometry Algebra I Part 2*	Geometry Algebra II	Pre-Calculus Calculus Statistics Consumer/Business Math

0450 Advanced Placement Calculus AB

Credit Value: 1	**Prerequisite:** Honors Pre Calculus or Calculus
Course Level: Advanced Placement	**Department Recommendation:** 75% or higher in Honors Pre Calculus
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: An Advanced Placement (AP) course in calculus consists of a full high school academic year of work that is compatible to a calculus course in colleges and universities. The course is primarily concerned with developing students' understanding of the concepts of calculus and providing experience with its methods and applications. The course is designed to prepare students for the AP exam - an exam used by colleges and universities in accordance with their own policies.

0451 Advanced Placement Calculus BC

Credit Value: 1	**Prerequisite:** AP Calculus AB
Course Level: Advanced Placement	**Department Recommendation:** 70% or higher in AP Calculus AB
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: Students enrolled in the course should have completed AP Calculus AB. The content of AP Calculus BC is designed to qualify students for placement credit in a college or university course that is one beyond AP Calculus AB. The objective of this course is to prepare students for the AP Calculus AB/BC exam given in the spring.

0424 Advanced Placement Statistics

Credit Value: 1	**Prerequisite:** Honors Algebra II; Algebra II
Course Level: Advanced Placement	**Department Recommendation:** 70% or higher in Honors Algebra II; 80% or higher in Algebra II
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: Strong reading and writing skills are required. Descriptive and inferential statistics will be studied. Course Requirements: Homework will be assigned daily. A graphing calculator is required. The math department recommends a TI-84 graphing calculator. A summer assignment is required.

0409 Algebra 1

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th
Course Weight: 1	**Learning Format:** Traditional

Course Description: In this course students will develop knowledge of algebraic principles and techniques as a continuation of 8th grade skills. Core topics include operations and properties of real numbers, solving and

graphing equations and inequalities, probability and statistics, solving and graphing systems of equations and inequalities, polynomials and factoring. This course is designed using the mastery learning and grading model, in which we use a growth-mindset approach by refocusing classroom instruction, assessment, and practice on clear and specific learning targets, and encouraging learners to focus on learning and mastering algebraic concepts (the learning targets). Continual learning is encouraged, and tests are not an endpoint in the learning process. Course Requirements: Frequent homework, quizzes, and tests. A midterm and final exam will be given in this course. A scientific calculator is required. Students will take the Keystone Algebra I exam upon completion of this course.

0409O Algebra 1

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th
Course Weight: 1	**Learning Format:** Online

Course Description: In this course students will develop knowledge of algebraic principles and techniques as a continuation of 8th grade skills. Core topics include operations and properties of real numbers, solving and graphing equations and inequalities, probability and statistics, solving and graphing systems of equations and inequalities, polynomials and factoring. This course is designed using the mastery learning and grading model, in which we use a growth-mindset approach by refocusing classroom instruction, assessment, and practice on clear and specific learning targets, and encouraging learners to focus on learning and mastering algebraic concepts (the learning targets). Continual learning is encouraged, and tests are not an endpoint in the learning process. Course Requirements: Frequent homework, quizzes, and tests. A midterm and final exam will be given in this course. A scientific calculator is required. Students will take the Keystone Algebra I exam upon completion of this course.

0407 Algebra 1 Part 2

Credit Value: 1	**Prerequisite:** Algebra 1 Part 1
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is designed using the mastery learning and grading model, in which we use a growth-mindset approach by refocusing classroom instruction, assessment, and practice on clear and specific

learning targets, and encouraging learners to focus on learning and mastering algebraic concepts (the learning targets). Continual learning is encouraged, and tests are not an endpoint in the learning process. It is designed for those students who, at the senior high level, express a need or desire for an introductory academic algebra course. Some important topics are, solving and graphing equations and inequalities, solving and graphing systems of equations and inequalities, polynomials and factoring. Course Requirements: Frequent homework, quizzes, and tests. A scientific calculator is required. Students will take the Keystone Algebra I exam upon completion of this course.

0406 Algebra I Part 1

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is designed using the mastery learning and grading model, in which we use a growth-mindset approach by refocusing classroom instruction, assessment, and practice on clear and specific learning targets, and encouraging learners to focus on learning and mastering algebraic concepts (the learning targets). Continual learning is encouraged, and tests are not an endpoint in the learning process. Some important topics are operations and properties of real numbers, solving equations and inequalities, exponents, polynomials, probability, statistics and radicals. Course Requirements: Frequent homework, quizzes, and tests. A scientific calculator is required.

0415 Algebra II

Credit Value: 1	**Prerequisite:** Algebra I AND Honors Geometry or Geometry
Course Level: Post-Secondary Preparation	**Department Recommendation:** 75% or higher in Algebra I
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is designed to review and improve proficiency in the basic methods of elementary algebra and to become familiar with many advanced topics including solving linear equations and inequalities, exponents, radicals, absolute value, relations and functions, systems of linear equations, operations and factoring of polynomials, rational expressions, solving of and applications of quadratic equations and

complex numbers. A scientific calculator is required, although a graphing calculator is suggested. The math department recommends a TI-84 graphing calculator.

04150 Algebra II

Credit Value: 1	**Prerequisite:** Algebra I AND Honors Geometry or Geometry
Course Level: Post-Secondary Preparation	**Department Recommendation:** 75% or higher in Algebra I
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Online

Course Description: This course is designed to review and improve proficiency in the basic methods of elementary algebra and to become familiar with many advanced topics including solving linear equations and inequalities, exponents, radicals, absolute value, relations and functions, systems of linear equations, operations and factoring of polynomials, rational expressions, solving of and applications of quadratic equations and complex numbers. Course Requirements: Frequent homework, quizzes, and tests. A cumulative final exam will be given. A scientific calculator is required, although a graphing calculator is suggested. The math department recommends a TI-84 graphing calculator.

0434 Calculus

Credit Value: 1	**Prerequisite:** Precalculus or Honors Precalculus
Course Level: Post-Secondary Preparation	**Department Recommendation:** 80% or higher in Precalculus
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is specifically designed for college-bound students who have had pre-calculus. The course aligns with a college level Calculus course. Topics to be studied include: limits and derivatives of functions, definite and indefinite integrals, simple differential equations, and applications of these techniques in solving related rates of change, optimization, volumes of revolution, and exponential growth. A TI-84 graphing calculator is recommended for this course.

0440 College in the High School Stat 0200: Basic Applied Statistics

Credit Value: 1	**Prerequisite:** Algebra II or Honors Algebra II
Course Level: College in the High School	**Department Recommendation:** 70% or higher in Algebra II
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: This course covers elementary topics from the probability and statistics of both discrete and continuous random variables. Topics include independence and dependence, mean, variance and expectation, and distributions of random variables. Statistics is applied to hypothesis testing. This course provides the student with a broad, general knowledge and understanding of statistics. The emphasis of this course is on the utility and practical application of statistics rather than on the mathematical derivation of statistical principles.

0426 Consumer/Business Math

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** Algebra II; Geometry
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Topics include gross pay, banking services, loans and credit cards, owning a home or car, insurance and investments. Throughout this course students will be creating several projects based on real life applications such as payroll spreadsheets, installment loans, mortgages, and bond investments. Course Requirements: Frequent homework, quizzes, projects, and tests. A cumulative final exam will be given. A scientific calculator is required.

0426O Consumer/Business Math

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** Algebra II; Geometry
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 12th
Course Weight: 1	**Learning Format:** Online

Course Description: Topics include gross pay, banking services, loans and credit cards, owning a home or car, insurance and investments. Throughout this course students will be creating several projects based on real life applications such as payroll spreadsheets, installment loans, mortgages, and bond investments. Course Requirements: Frequent homework, quizzes, projects, and tests. A cumulative final exam will be given. A scientific calculator is required.

0410 Geometry

Credit Value: 1	**Prerequisite:** Algebra I OR Algebra I Part 2
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is appropriate for all learners. It is designed using the mastery learning and grading model, in which we use a growth-mindset approach by refocusing classroom instruction, assessment, and practice on clear and specific learning targets, and encouraging learners to focus on learning and mastering geometric concepts (the
learning targets). Continual learning is encouraged, and tests are not an endpoint in the learning process. Geometric concepts taught in this course include the basic terms and notation of geometry, parallel and perpendicular lines, congruent triangles, transformations, similarity, right triangle geometry, similarity, area, surface area, and volume. A midterm and final exam will be given in this course. A scientific calculator is required for this class.

0410O Geometry

Credit Value: 1	**Prerequisite:** Algebra I
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Online

Course Description: This course is appropriate for all learners. It is designed using the mastery learning and grading model, in which we use a growth-mindset approach by refocusing classroom instruction, assessment, and practice on clear and specific learning targets, and encouraging learners to focus on learning and mastering geometric concepts (the

learning targets). Continual learning is encouraged, and tests are not an endpoint in the learning process. Geometric concepts taught in this course include the basic terms and notation of geometry, parallel and perpendicular lines, congruent triangles, transformations, similarity, right triangle geometry, similarity, area, surface area, and volume. A midterm and final exam will be given in this course. A scientific calculator is required for this class.

0417 Honors Algebra II

Credit Value: 1	**Prerequisite:** Algebra I AND Honors Geometry or Geometry
Course Level: Honors	**Department Recommendation:** 90% or higher in Algebra I
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th
Course Weight: 1.2	**Learning Format:** Traditional

Course Description: Honors Algebra II is designed for mathematically creative students. In this course, students will strengthen their problem solving, reasoning, and analysis skills. Topics covered include linear, absolute value, piecewise, rational, radical, and quadratic functions. More complicated systems, matrices, polynomials and the complex number system will also be explored. A TI-84 is recommended for this course.

0411 Honors Geometry

Credit Value: 1	**Prerequisite:** Algebra I
Course Level: Honors	**Department Recommendation:** 90% or higher in Algebra I
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th
Course Weight: 1.2	**Learning Format:** Traditional

Course Description: This course is designed for mathematically creative and curious students. Topics will be presented in more depth and at a faster pace than the regular Geometry course. Some important topics include congruence of geometric figures, parallel and perpendicular lines in a plane, similar figures, logic, right triangles, circles, and coordinate geometry
with an emphasis on deductive logic and geometric proofs. Course Requirements: Daily homework, quizzes, and tests. A cumulative final exam will be given. A scientific calculator is required.

0452 Honors Precalculus

Credit Value: 1	**Prerequisite:** Honors Algebra II
Course Level: Honors	**Department Recommendation:** 80% or higher in Honors Algebra II
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1.2	**Learning Format:** Traditional

Course Description: This course is designed for mathematically creative students. Topics will be presented in more depth and at a faster pace than the regular Precalculus course. Students will develop problem solving, analysis and computational skills driven by parent, piecewise, polynomial, rational, exponential, and logarithmic functions. The course concludes with an introduction to Trigonometry and Calculus. A TI-84 is recommended for this course.

0454 Precalculus

Credit Value: 1	**Prerequisite:** Geometry and Algebra II
Course Level: Post-Secondary Preparation	**Department Recommendation:** Geometry and 75% or higher in Algebra II
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: In this course students will gain a deeper understanding of linear, rational, polynomial, exponential, and logarithmic functions and concludes with trigonometry. Precalculus will develop students' knowledge and skills to ensure success in Calculus and other higher level math courses. A TI-84 graphing calculator is recommended.

0430 Statistics

Credit Value: 1	**Prerequisite:** Algebra II Honors Algebra II
Course Level: Post-Secondary Preparation	**Department Recommendation:** 70% or higher in Algebra II or Honors Algebra II
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th

Course Weight: 1	**Learning Format:** Traditional
Course Description: Strong reading and writing skills are required. Descriptive and inferential statistics will be studied. Course Requirements: Frequent homework, quizzes, projects, and tests. A cumulative final exam will be given. A graphing calculator is required. The math department recommends a TI-84 graphing calculator.	

Music

Course Listing

All courses in the music department fulfill the Arts and Humanities graduation requirement.

Symphonic Band Choir	Music Technology Orchestra	Online Courses: Music Identities and Heritages Music Theory Evolution of America's Music

13200 Basic Music Theory

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Online

Course Description: Basic Music Theory is for students who have serious interest in music fundamentals. Experience with vocal or instrumental performance is highly encouraged, but not necessary. Students will learn music notation, melodic, harmonic and rhythmic structures and music analysis.

1310 Choir

Credit Value: 1.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is designed to provide instruction in vocal technique, music literacy, aural skills and voice care. Students are assessed on progress with technique and literature singly, in small and larger groups through performing a wide variety of musical genres. Three public concerts are held throughout the year. Extra-curricular opportunities exist for students in this course including Chansodié (select chamber group) and honors festival auditions.

13340 Evolution of America's Music

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Online

Course Description: Arts Connections is a course in which students will explore not only how the art of music is created, but ways in which music connects to broader life experiences and connections between music and other disciplines.

1330 Music Technology

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Music Technology allows students to explore basic musical concepts and their practical application using current technology and applications. This course will include MIDI sequencing, loop-based arranging and composing and digital multitrack recordings/compositions. This course fulfills the Arts and Humanities requirement.

1320 Music Theory

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Music Theory is for students who have serious interest in the study of music fundamentals and how music "works." Experience with instrumental or vocal performance is encouraged but not necessary. This course will explore music notation, melodic, harmonic and rhythmic structures, and harmonic analysis.

13010 Musical Identities and Heritages

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Online

Course Description: This course examines music history, theory and brain science through a current and personal lens. Learners will first explore the musical identities of various eras, genres, and countries and analyze prototypical musical examples by utilizing the elements of music. Learners will hear the perspectives of famous contemporary musical artists regarding careers in music and individuals' experiences during pivotal time periods. Learners will also study the connections between music and cognition, emotion, and interdisciplinary academic subjects.

1314 Orchestra

Credit Value: 1.5	**Prerequisite:** Technical ability on a musical instrument approaching high school level
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is for students playing a string instrument at an acceptable level of mastery. Students will build on basic knowledge of finger and bowing techniques. Membership for woodwind, brass and percussion students are encouraged for any student proficient on their instrument. Three public concerts are held each year: one in the fall and two in the spring. Performance experiences all students to advance their individual and ensemble playing technique. Extra-curricular opportunities for this class exist through auditions for honors festivals.

1312 Symphonic Band

Credit Value: 1.5	**Prerequisite:** Knowledge of instrumental technique, etc., approaching a high school level
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Symphonic Band is for students who play a woodwind, brass or percussion instruments with an acceptable degree of technical competency and musical understanding. Concert Band meets marking periods 2-4, providing opportunities to enhance ensemble techniques as well as individual instrumental skills. The band performs publicly in December, April and May. Enrolled students are eligible to audition for County, District, Regional and All-State Band Festivals.

Science
Course Listing and Sequence

Level	9th Grade	10th Grade	11th & 12th Grade
AP / Honors	Honors 9th Physical Science **Elective Course:** Honors Biology I	**Required Course:** Honors Biology I **Elective Courses:** -AP Chemistry /CHS Chem -AP Environmental Science / CHS ENVS -AP Physics C: Mechanics / CHS Phys -Honors Anatomy and Physiology	- AP Biology / CHS Biol -AP Chemistry /CHS Chem --AP Environmental Science / CHS ENVS -AP Physics C: Mechanics / CHS Phys -Honors Anatomy & Physiology -CHS Forensic Science
Post-Secondary Preparation	9th Physical Science	**Required Course:** Biology I **Elective Courses:** -Chemistry I -Physics	-Anatomy & Physiology> -Chemistry I -Climatology -Physics -Forensic Science

0556T Physical Science

Credit Value: 1	**Prerequisite:** none
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th
Course Weight: 1	**Learning Format:** Online

Course Description: Physical Science is a college-prep course to introduce concepts in physics and chemistry. The topics covered will include motion and forces, energy, matter and its changes, and the nature of science. The use of simple algebraic processes and graphical representations in the study of these physical and chemical processes will be required. Students will learn procedures for collecting and analyzing data through laboratory experiences.

0556 Physical Science

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Physical Science is a college-prep course to introduce concepts in physics and chemistry. The topics covered will include motion and forces, energy, structure of matter and chemical changes of matter. Students will use simple algebraic processes, graphical representations and learn procedures for collecting and analyzing data through laboratory experiences.

0515 Advanced Placement Biology

Credit Value: 2	**Prerequisite:** Biology
Course Level: Advanced Placement	**Department Recommendation:** 90% or higher in Biology
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: AP Biology is designed to be the equivalent of a college introductory biology course taken by biology majors during their freshman year. After achieving the necessary score on the AP exam most students, as college freshman, receive college credit and may be permitted to undertake upper-level courses in biology or to enroll in a course in which freshman biology is a prerequisite. A main goal of AP Biology is to help students develop a conceptual framework for modern biology and to help students prepare for the College Board AP Biology Exam.

0516 College in the High School BIOL 102/103 - General Biology

Credit Value: 2	**Prerequisite:** Biology
Course Level: Advanced Placement	**Department Recommendation:** 90% or higher in Biology
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: This course introduces the student to the major themes of biology, including properties of living organisms, comparison of eucaryotes vs. procaryotes, patterns of inheritance, the central dogma, mitosis and meiosis, the diversity of life in both plants and animals, classification of organisms, evolution, metabolism, photosynthesis, cell structures, basic structure of the body, infectious disease, the Hardy-Weinberg principle, biodiversity, ecosystems, and the biosphere. A broad understanding of biology and living organisms in the biosphere is developed through hand-on, mulit-modal engages learning opportunities in both the classroom and the companion laboratory component.

0525 Advanced Placement Chemistry

Credit Value: 2	**Prerequisite:** Honors Chemistry OR Chemistry I
Course Level: Advanced Placement	**Department Recommendation:** 87% or higher
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: AP Chemistry is designed to be the equivalent of a college introductory chemistry course taken by chemistry majors during their freshman year. After achieving the necessary score on the AP exam most students, as college freshman, may be permitted to undertake upper-level courses in chemistry or to enroll in a course in which freshman chemistry is a prerequisite. A main goal of AP Chemistry is to help students develop a conceptual framework for modern chemistry and to help students gain and prepare for the National AP Chemistry Exam. In addition, extensive AP Chemistry labs as directed by the College Board will be included in this course. The AP Chemistry course follows the College Board framework.

1425 AP Environmental Science

Credit Value: 1	**Prerequisite:** Biology, Chemistry
Course Level: Advanced Placement	**Department Recommendation:** 80% or higher in Biology and Chemistry is preferred
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: The AP Environmental Science course is a rigorous, introductory college-level course that builds on scientific principles from chemistry, physics, biology, ecology, and earth science. This course follows guidelines established by the College Board with the goal to provide students with scientific principles, concepts, and methodologies required to understand interrelationships in the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these

problems, and to examine alternatives for resolving and/or preventing them, including environmental policies and legislation. A main goal of AP Environmental Science is to help students prepare for the College Board AP exam.

0521 AP Physics C: Mechanics

Credit Value: 1	**Prerequisite:** Pre- Calculus 87% or higher
Course Level: Advanced Placement	**Department Recommendation:** Pre- Calculus 87% or higher
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: AP Physics is designed to be the equivalent of a one semester of a college introductory physics course. A main goal of AP Physics is to help students develop a conceptual framework for physics and to help students gain and prepare for the National AP Physics Exam. In addition, extensive AP Physics labs as directed by AP Physics College Board will be done in class.

0509 Biology

Credit Value: 1	**Prerequisite:** none
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Biology is designed to provide an overview of the study of life and the opportunity to experience its many aspects through laboratory exercises. This course is designed to meet all biology standards and eligible content set forth by the Commonwealth of Pennsylvania. Students will take the Biology Keystone Exam at the completion of this course.

0509O Biology Online

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th

Course Weight: 1	**Learning Format:** Online

Course Description: Biology is designed to provide an overview of the study of life. This course is designed to meet all biology standards and eligible content set forth by the Commonwealth of Pennsylvania. Students will take the Biology Keystone Exam at the completion of this course.

0514 Chemistry I

Credit Value: 1	**Prerequisite:** Algebra 1
Course Level: Post-Secondary Preparation	**Department Recommendation:** 75% in Algebra 1
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Chemistry I is designed for all students preparing for post-high school education. The course will require students to apply mathematical concepts and solve problems using abstract thinking. Students will be required to perform laboratory experiments, analyze observed data, perform calculations, write up the results and draw conclusions. Chemistry I includes: study of matter, atomic theory and structure, periodic table and trends, bonding, nomenclature of inorganic compounds, chemical equations and reactions, stoichiometry, gas laws and solutions. A scientific calculator is required for this course.

0546 Climatology

Credit Value: 1	**Prerequisite:** none
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course offers an overview of Earth's climate system by describing the major climatological features in the atmosphere and oceans. Fundamentals of oceanography and meteorology will be explored hands-on as students investigate the driving forces behind topics such as ocean currents, air circulation, weather and cloud formation, and earth's ever-changing climate. Students will also investigate our local weather conditions and support NASA's data collection by using Manheim Central's weather station.

05460 Climatology Online

Credit Value: 1	**Prerequisite:** none
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1	**Learning Format:** Online

Course Description: This online course offers an overview of Earth's climate system by describing the major climatological features in the atmosphere and oceans. Fundamentals of oceanography and meteorology will be explored through virtual simulations as students investigate the driving forces behind topics such as ocean currents, air circulation, weather and cloud formation, and earth's ever-changing climate. Students will also investigate and predict our local weather conditions using Manheim Central's weather station.

0534 Forensic Science

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Forensic Science is a laboratory-based course in which students will apply their prior knowledge of biology, chemistry, physics and mathematics to the popular field of crime scene investigation. Students will use a structured and scientific approach to investigate physical and biological evidence as well as deductive reasoning to determine the relevance of the evidence to the crime.

0535 College in the High School Forensic Science

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** Biology, Chemistry
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: Introduction to Forensic Science is a course designed to familiarize the student with the various disciplines associated with forensic science analyses. In this course, the student will learn the

fundamental principles of crime scene processing, fingerprinting, bloodstain pattern analysis, drug chemistry, firearms identification, forensic toxicology, forensic biology, and courtroom testimony among other topics. It is designed to instill proper practices for evidence.

0550 Honors Physical Science

Credit Value: 1	**Prerequisite:** Algebra I
Course Level: Honors	**Department Recommendation:** Algebra I 80%
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th
Course Weight: 1.2	**Learning Format:** Traditional

Course Description: Honors Physical Science is designed for students who have a desire to continue a college or career interest in the science field. It is a rigorous college-preparatory course in the physical sciences that will prepare students for the honors and advanced placement courses offered in the science department. Topics studied include motion and forces, energy, structure of matter, and chemical changes of matter.

513 Honors Anatomy & Physiology

Credit Value: 1	**Prerequisite:** Biology
Course Level: Honors	**Department Recommendation:** 84% or higher in Biology.
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1.2	**Learning Format:** Traditional

Course Description: Honors Anatomy & Physiology is designed for all college bound students planning a career in the biological sciences or related fields. This course takes an in-depth approach to studying anatomy and physiology from cell structure to a survey of the organ systems. Laboratory experiences include a microscopic study of
tissues, cat dissection, and observation of preserved specimens, anatomical models, and computer models.

0511 Honors Biology

Credit Value: 1	**Prerequisite:** Honors 9th Physical Science
Course Level: Honors	**Department Recommendation:** 84% or higher in Honors Physical Science

Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th
Course Weight: 1.2	**Learning Format:** Traditional

Course Description: Honors Biology I is designed to meet all biology standards and eligible content set forth by the Commonwealth of Pennsylvania. Units of study include; Science of Life,
Chemistry of Life, Homeostasis & Transport, Cell Energy, Nucleic Acids & Protein Synthesis, Cell Growth & Division, Continuity of Life, Diversity of Life, and Ecology. Honors students will experience a more in-depth study of these content areas, beyond the demands of Post-Secondary Preparation Biology I and is intended for those students who ave a desire to continue a college or career interest in the science field.

1426 College in the High School - Introduction to Environmental Science

Credit Value: 1	**Prerequisite:** Biology, Chemistry
Course Level: Advanced Placement	**Department Recommendation:** Biology, Chemistry
Course Fee:	**Course is for Students in Grade(s):** 10,11,12
Course Weight: 1.3	**Learning Format:** Traditional, HU curriculum

Course Description: Environmental science is the study of natural ecosystems, human impacts on the environment, and sustainable management of the Earth's resources. Processes of the physical and biological environment are used as a basis for consideration of current environmental topics. Other areas covered include: energy consumption and global warming, water and air pollution, waste management, impacts of deforestation on biodiversity, and other environmental changes occurring on a global scale. Three hours of lecture, three hours of laboratory work per week.

0526 College in the High School General Chemistry 151(Lecture) & 152 (Lab Experience)

Credit Value: 1	**Prerequisite:**
Course Level: Honors - Will run as its own course separate from AP or Level I	**Department Recommendation:** 84% in Algebra II
Course Fee:	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1.2	**Learning Format:** Traditional/HU Curriculum

Course Description: This course provides a general introduction to states of matter, atoms and molecules, chemical nomenclature, stoichiometry, reactions, concentration units, periodicity, chemical bonding, atomic and

molecular structure, and thermodynamics, which serve as a prerequisite for advanced courses. Beside it, Companion laboratory component that illustrates through hands-on experimentation the general introduction to states of matter, atoms and molecules, chemical nomenclature, stoichiometry, reactions, concentration units, periodicity, chemical bonding, atomic and molecular structure, and thermodynamics, which serve as a prerequisite for advanced courses.

0522 College in the High School - General Physics I Lecture and lab

Credit Value: 1	**Prerequisite:**
Course Level: Advanced Placement	**Department Recommendation:** 80% or better in PreCalculus
Course Fee:	**Course is for Students in Grade(s):** 11,12
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: This course provides an introductory treatment of classical Newtonian physics and covers kinematics in one and two dimensions, vector forces, Newton's laws of motion, uniform circular motion, work, conservation of energy, momentum and angular momentum, rotational kinematics and dynamics, and simple harmonic motion. Emphasis is placed on the application of basic concepts through mathematical problem-solving. Applications of physics to problems in medicine are presented and medical technology is highlighted throughout the course. This laboratory course provides hands-on experience with various measurement technologies and reinforces the theoretical concepts developed in PHYS 121. Emphasis is placed on correct setup of experimental equipment to obtain valid results, troubleshooting errors, and data analysis in support of a hypothesis.

0520 Physics

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** Algebra II
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Investigations and various projects will help students develop critical thinking and problem solving skills in order to obtain fundamental understanding of following Physics concepts: changes is speed of an objects, forces that cause motion, roller-coaster energy, changes of momentum during collisions, electricity, waves, behavior of sound and light, and optics. Algebra will be used in the solving of problems.

Social Studies

Course Listing and Sequence

Please note this is a suggested sequence of courses and students may choose to take more than one social studies course in a school year.

**Asterisk indicates that a course fulfills State requirement for American Government course*

Level	9th Grade	10th Grade	11th Grade	12th Grade Elective Choices
AP / Honors	AP United States History	AP European History	*AP United States Government and Politics	AP Psychology
Post-Secondary Preparation	American History II	European History **Or two of the following courses:** America in Conflict Genocide and Ethnic Cleansing History and Legacy of Imperialism History of Rock & Roll Human Geography	*American Government *Financial Literacy Introduction to Psychology Perspectives in Sociology	Introduction to Psychology American Law & Justice Perspectives in Sociology

0663 Advanced Placement European History

Credit Value: 1	**Prerequisite:** None
Course Level: Advanced Placement	**Department Recommendation:** Social Studies teacher recommendation
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: AP European History presents an in-depth coverage of major developments in modern European history, starting about 1450, the era historians link as the beginning of the modern era. This course will introduce students to the cultural, political, economic and social developments in Europe that provide the foundational understanding for contemporary European institutions and beliefs. AP European History is a challenging college level
course that expects students to evaluate, describe, and analyze themes in modern European history, along with demonstrating a core knowledge of specific facts

0631 Advanced Placement Psychology

Credit Value: 1	**Prerequisite:** None
Course Level: Advanced Placement	**Department Recommendation:** 84% or higher in AP American Government, Honors Economics, OR teacher recommendation
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 12th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: This course is designed to prepare students to take the AP Psychology Test in order to receive college credit and benefit their academic career. It is offered to students interested in going into Psychology or a Psychology-related field. Due to its accelerated pace and extensive curriculum the course should only be taken by a serious academic student.

0650 Advanced Placement United States Government and Politics

Credit Value: 1	**Prerequisite:** None
Course Level: Advanced Placement	**Department Recommendation:** Social Studies Teacher Recommendation
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: AP United States Government and Politics provides students with an analytical perspective on government and politics in the United States. Throughout the course students will explore the constitutional history of the United States, the various political beliefs and behaviors of Americans, the branches of American government, and the civil rights and liberties that exist for American citizens. Students will come to understand the various avenues through which they, as citizens, have the opportunity to organize and communicate their interests and concerns.

0698 Advanced Placement United States History

Credit Value: 1	**Prerequisite:** None
Course Level: Advanced Placement	**Department Recommendation:** None

Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th (10th-12th may schedule this course if openings exist)
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: The AP U.S. History course focuses on developing students' understanding of American history from approximately 1491 to the present. The course has students investigate the content of U.S. history for significant events, individuals, developments, and processes in nine historical periods, and develop and use the same thinking skills and methods (analyzing primary and secondary sources, making historical comparisons, chronological reasoning, and argumentation) employed by historians when they study the past.

0657 America in Conflict

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course will focus on major conflicts that have shaped and defined the United States of America. Utilizing historical perspective taking skills, as well as research skills, students will examine the implications of the United States' involvement in conflicts both domestically and internationally.

0648 American Government

Credit Value: 0.5	**Prerequisite:** none
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th
Course Weight: 1	**Learning Format:** Traditional

Course Description: U.S. Government focuses on the purpose and responsibilities of government, explores the relationship between political parties and examines the three branches of government. Students will examine the role of state and local government in their daily lives. Students will leave class with an appreciation for the workings of the U.S. government and its impact on American society. At the conclusion of the course, each student will be required to complete a state compulsory Civics Exam.

06480 American Government

Credit Value: 0.5	**Prerequisite:** none
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th
Course Weight: 1	**Learning Format:** Online

Course Description: U.S. Government focuses on the purpose and responsibilities of government, explores the relationship between political parties and examines the three branches of government. Students will examine the role of state and local government in their daily lives. Students will leave class with an appreciation for the workings of the U.S. government and its impact on American society. At the conclusion of the course, each student will be required to complete a state compulsory Civics Exam.

0627 American History II

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th
Course Weight: 1	**Learning Format:** Traditional

Course Description: American History II will focus on the historical, political, social, and economic trends in the United States. This course starts with Civil War Reconstruction to modern events. Students will examine cause and effect, develop critical thinking and analysis skills, and foster historical research skills through primary and secondary sources.

06270 American History II

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th
Course Weight: 1	**Learning Format:** Online

Course Description: This course will focus on the historical, political, social, and economic trends in the United States. Students will demonstrate basic understanding of the narrative of America's past from Reconstruction to

the events of September 11, 2001. Students will examine cause and effect, develop critical thinking and analysis skills, and foster historical research skills through primary and secondary sources.

0634 American Law and Justice

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: American Law and Justice is designed to introduce students to some of the most controversial legal issues in today's society. Learners will briefly explore constitutional law before being introduced to criminal law, police procedure, the trial system, the prison system, and current 8th Amendment challenges. A wide range of crimes will be discussed, ranging from homicide to various property crimes.

0634O American Law and Justice

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 12th
Course Weight: 1	**Learning Format:** Online

Course Description: American Law and Justice is designed to introduce students to some of the most controversial legal issues in today's society. Learners will briefly explore constitutional law before being introduced to criminal law, police procedure, the trial system, the prison system, and current 8th Amendment challenges. A wide range of crimes will be discussed, ranging from homicide to various property crimes.

0612 European History

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th
Course Weight: 1	**Learning Format:** Traditional

Course Description: European History and will highlight the interaction and interdependence of people in our shrinking world. Starting with the background of the Black Death and Medieval Europe, students will analyze the political, religious, intellectual, military, economic and social levels in Eurasian, Western Middle Eastern and South American societies & Europe's relationship with those societies. Topics to be discussed are the development of the nation state, the scientific and political revolutions of the eighteenth century, the age of liberalism, twentieth century totalitarianism, anti-colonialism and post-World War II internationalism. Students should complete this course with a heightened appreciation of their own culture, the historical contributions of non-Western civilizations, and an increased awareness of national and international issues presented in their historical context.

06120 European History

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th
Course Weight: 1	**Learning Format:** Online

Course Description: European History will highlight the interaction and interdependence of people in our shrinking world. Starting with the background of the Black Death and Medieval Europe, students will analyze the political, religious, intellectual, military, economic and social levels in Eurasian, Western Middle Eastern and South American societies & Europe's relationship with those societies. Topics to be discussed are the development of the nation state, the scientific and political revolutions of the eighteenth century, the age of liberalism, twentieth century totalitarianism, anti-colonialism and post-World War II internationalism. Students should complete this course with a heightened appreciation of their own culture, the historical contributions of non-Western civilizations, and an increased awareness of national and international issues presented in their historical context.

0645 Financial Literacy

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course equips 11th-grade students with essential knowledge and practical skills to make informed financial decisions throughout their lives. Students will explore the fundamentals of personal

finance in a real-world context, developing habits for responsible money management, goal-setting, and long-term financial success

0660 Genocide and Ethnic Cleansing

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th
Course Weight: 1	**Learning Format:** Traditional

Course Description: The Genocide and Ethnic Cleansing course will examine the causes and effects of mass killing throughout history, specifically the 20th century. A variety of case studies will be examined by students. Historical causation and effect, the analysis of primary and secondary sources, and research and writing skills will be honed throughout the course.

0661 History and Legacy of Imperialism

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Beginning in 1450 and extending to the modern day, the course will examine imperialism through several different case studies. An analysis of imperial motives and those effects on colonial and native people will be emphasized in order to trace the political, economic, social, and environmental effects of imperialism. Historical thinking skills will be developed in the form of causation, contextualization, primary and secondary source analysis, research, writing, reading, and civil discussion.

0667 History of Rock and Roll

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th

Course Weight: 1	**Learning Format:** Traditional

Course Description: This course will provide an introduction to the genre of rock music and the artists and bands spanning the years 1955 to 1969. Through readings and numerous listening examples, this course will look at the state of American popular music after World War II, the inception of rock and roll in the 1950s, the growth of youth culture in America, and the growing popularity of rock and roll through radio, film and television. Featured music and artists are examined from cultural and societal perspectives, with a special focus on how each genre not only represented its specific cultural era, but how individual artists and songs contributed to the perception of those same time periods.

0664 Human Geography

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Human Geography is designed to introduce you to many regions and nations of the world. Regions will be studied in terms of geography, cultures, social and religious conflicts, human rights issues, and current events. During this course, students will study current and potential influences on the nations of the world and how they impact the United States. All regions of the world will be studied with an emphasis on the following Asia, Africa, Latin America, Middle East, Europe.

0629 Introduction to Psychology

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course will introduce students to key topics covered in a typical 100 level College Course. Units that will be covered include the Biological Perspective, Behaviorism, the Cognitive Perspective and Psychoanalysis. The culminating activity will be an overview of psychological disorders in order to dispel the stigma associated with mental health issues.

06290 Introduction to Psychology

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 12th
Course Weight: 1	**Learning Format:** Online

Course Description: The online Psychology course will cover the same content found in the traditional classroom. Students will be introduced to topics typically found in a 100 level college course. Topics include the Biological Perspective, Behaviorism, the Cognitive Perspective, and Psychoanalysis. Students will also be introduced to a variety of psychological disorders in order to dispel the stigma of suffering with a mental illness.

0632 Perspectives in Sociology

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: The overall goal of this course is to introduce you to the field of Sociology by examining some of its key tenets and applying them to your everyday lives. Not only will you be better able to explain the society you live in, but you will actually get to "do" Sociology and apply what C. Wright Mills calls the "Sociological Imagination" Key topics studied in this course include: Culture, Socialization, Group Behavior, Deviance, and Race and Ethnicity.

0632O Perspectives in Sociology

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1	**Learning Format:** Online

Course Description: The overall goal of this course is to introduce you to the field of Sociology by examining some of its key tenets and applying them to your everyday lives. Not only will you be better able to explain the society

you live in, but you will actually get to "do" Sociology and apply what C. Wright Mills calls the "Sociological Imagination" Key topics studied in this course include: Culture, Socialization, Group Behavior, Deviance, Race and Ethnicity, and Gender and Sexuality.

Special Education
Course Listing

Level	ELA	Math
Modified	Applied Reading Instruction 9th ELA 10th ELA American Literature	Applied Math Instruction Pre-Algebra Algebra I, Part 1 Algebra I, Part 2
Transitional Programs	School-to-Work Foundations School-to-Work Next-Step Program	

1844 Applied Math Instruction

Credit Value: 1	**Prerequisite:** IEP
Course Level: Learning Support	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is designed to teach and review the fundamentals of basic math, measurement, money, and time. Both group and individual instruction will be used to achieve the course objectives and meet individual student goals. Activities and content may be remedial to grow the mathematics skills for each learner.

1843 Applied Reading Instruction

Credit Value: 1	**Prerequisite:** IEP
Course Level: Learning Support	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th

Course Weight: 1	**Learning Format:** Traditional

Course Description: This course will provide learners with direct reading instruction and comprehension strategies. This course is designed to meet the individual goals of the learners. Activities and content may be remedial to grow the reading skills for each learner.

1920E Modified 10th Grade Language Arts

Credit Value: 1	**Prerequisite:** IEP
Course Level: Learning Support	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is designed to meet English Language Arts standards and eligible content set forth by the Commonwealth of Pennsylvania. Instruction in this class is individualized to the student's needs as identified in the Individual Education Plan. Activities and content may be remedial in nature and/or may parallel the general education program.

1920F Modified 10th Language Arts

Credit Value: 1	**Prerequisite:** IEP
Course Level: Learning Support	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is designed to meet English Language Arts standards and eligible content set forth by the Commonwealth of Pennsylvania. Instruction in this class is individualized to the student's needs as identified in the Individual Education Plan. Activities and content may be remedial in nature and/or may parallel the general education program.

1919 Modified 9th Language Arts

Credit Value: 1	**Prerequisite:** IEP
Course Level: Learning Support	**Department Recommendation:** None

Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th
Course Weight:	**Learning Format:** Traditional

Course Description: This course is designed to meet English Language Arts standards and eligible content set forth by the Commonwealth of Pennsylvania. Instruction in this class is individualized to the student's needs as identified in the Individual Education Plan. Activities and content may be remedial in nature and/or may parallel the general education program.

1925E Modified Algebra I, Part 1

Credit Value: 1	**Prerequisite:** IEP
Course Level: Learning Support	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course has the primary objective of developing knowledge of algebraic principles and techniques. Activities and content may be remedial in nature and /or may parallel the general education program designed to meet Algebra I standards. Instruction in this class is individualized to the student's needs as identified in the Individualized Education Plan.

1925F Modified Algebra I, Part 1

Credit Value: 1	**Prerequisite:** IEP
Course Level: Learning Support	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course has the primary objective of developing knowledge of algebraic principles and techniques. Activities and content may be remedial in nature and /or may parallel the general education program designed to meet Algebra I standards. Instruction in this class is individualized to the student's needs as identified in the Individualized Education Plan.

1926 Modified Algebra I, Part 2

Credit Value: 1	**Prerequisite:** IEP
Course Level: Learning Support	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course has the primary objective of developing knowledge of algebraic principles and techniques. Activities and content may be remedial in nature and /or may parallel the general education program designed to meet Algebra I standards. Instruction in this class is individualized to the student's needs as identified in the Individualized Education Plan.

1921 Modified American Literature

Credit Value: 1	**Prerequisite:** IEP
Course Level: Learning Support	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is designed to meet English Language Arts standards and eligible content set forth by the Commonwealth of Pennsylvania with a focus on American Literature. Instruction in this class is individualized to the student's needs as identified in the Individualized Education Plan. Activities and content may be remedial in nature and/or may parallel the general education program.

1924 Modified Pre-Algebra

Credit Value: 1	**Prerequisite:** IEP
Course Level: Learning Support	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course has the primary objective of developing knowledge of algebraic principles and techniques. Instruction in this class is individualized to the student's needs as identified in the Individualized Education Plan.

1840 Next Step Program

Credit Value: 8	**Prerequisite:** IEP/ 18 Years of Age or Older
Course Level: Life Skills Support	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** Based upon IEP team decision.
Course Weight: 1	**Learning Format:** Traditional

Course Description: The Next Step Program at Manheim Central will provide students with disabilities Job Experiences (Paid/Unpaid Work Crews and Paid/Unpaid Internships), Community Awareness Skills and Independent Living Skills in a house/community setting. Through a non-traditional classroom setting, the students will receive functional academics and life skills that are needed for jobs and life. With the support available, students will be assisted on the job to monitor safety and assure the tasks at hand are being successfully completed. The Next Step Program is intended to be the final year of high school for students as they transition to independent living and employment. Students must be 18 before starting the program.

1830/1832/1834/1836 School-To-Work

Credit Value: 4	**Prerequisite:** IEP
Course Level: Life Skills Support	**Department Recommendation:** Based on an IEP team decision; generally follows School to Work Foundations
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: The School to Work program is designed for students with disabilities who require instruction in the following skill areas: transition skills/activities for workplace readiness, higher level independent employability and vocational skills, social skills for the workplace, disability disclosure and accessing supports and resources in the community for medical, leisure, mental, financial and emotional needs. Students will participate in volunteer and paid work opportunities as they move toward graduation and independent living. The program is supported with job training services. This program can prepare student to participate in the Next-Step-Program or other transitional program. Participation based on an IEP team decision; generally follows School to Work Foundations. For students in 11th, 12th or 13th year students.

1841/142 School-To-Work Foundations

Credit Value: 2	**Prerequisite:** IEP
Course Level: Life Skills Support	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This one block, introductory course is designed for students with disabilities who require instruction in functional academics, basic occupational skills, job/vocational skills and independent living skills. Students will participate in volunteer and paid work crew opportunities in the school and community, career exploration, job shadows, and other community-based instruction opportunities to help develop the foundation for independent employability and living skills. The program is supported with job training services. For students in 9th to 12th+ grades based on IEP team decision.

2030 Social Skills

Credit Value: 1	**Prerequisite:** IEP
Course Level: Learning Support	**Department Recommendation:** Based upon IEP team decision
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This daily social skills course is designed to promote positive behaviors, academic success and prosocial school behavior. The activities will include group discussions, team building activities, active listening, cooperating with others, problem solving, and planning.

1999 Academic Support

Credit Value: 1	**Prerequisite:** IEP
Course Level: Learning Support	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** Based upon IEP team decision.

Course Weight: 1	**Learning Format:** Traditional

Course Description: Study support is a class focused on work completion, organization, time management, goal setting, study skills, and test taking strategies. This class is individualized to students' needs, as identified in the Individualized Education Plan. Focus will be on academic acquisition and transition needs.

1815 Vocational English

Credit Value: 1	**Prerequisite:** IEP
Course Level: Learning Support	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th, 13
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course stresses functional reading, writing, listening, and speaking skills for the world of work. Learners will build communication skills while focusing on their individual vocational interests.

1814 Vocational Math

Credit Value: 1	**Prerequisite:** IEP
Course Level: Learning Support	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th, 13
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course is designed to teach and expand the fundamentals of basic math, measurement, consumer math, and vocational math (problems related to specific work environments.) Both group and individual instruction will be used to achieve the course objectives and meet individual student goals.

Student Services
Course Listing

CTC Program, AM CTC Program, PM CTC Program Full-Day	Internship Program Service-Work Program Dual Enrollment

1512 Lancaster County Career and Technical Center (LCCTC) Introduction Program, AM

Credit Value: 4	**Prerequisite:** Must meet requirements to be a junior
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th
Course Weight: 1	**Learning Format:** Traditional

Course Description: The half-day LCCTC Introduction Programs allow students to explore a variety of careers within an occupation cluster and are designed for students who plan to apply for one of the full-time LCCTC programs during their senior year. Students will be eligible to apply to the Mount Joy campus introduction programs offered at the LCCTC during their sophomore year. Admittance is determined by the LCCTC and students must be in good academic standing at the high school to attend the CTC in their junior year. Those students electing to attend CTC during their junior year of high school must still meet the course requirements for graduation. Students may need to complete additional credits to meet the graduation requirements by taking online course(s) through the high school. Transportation is provided to and from Manheim Central High School and the LCCTC campus.

1515 Lancaster County Career and Technical Center (LCCTC) Introduction Program, PM

Credit Value: 4	**Prerequisite:** Must meet requirements to be a junior
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th
Course Weight: 1	**Learning Format:** Traditional

Course Description: The half-day LCCTC Introduction Programs allow students to explore a variety of careers within an occupation cluster and are designed for students who plan to apply for one of the full-time LCCTC programs during their senior year. Students will be eligible to apply to the Mount Joy campus introduction programs offered at the LCCTC during their sophomore year. Admittance is determined by the LCCTC and students must be in good academic standing at the high school to attend the CTC in their junior year. Those

students electing to attend CTC during their junior year of high school must still meet the course requirements for graduation. Students may need to complete additional credits to meet the graduation requirements by taking online course(s) through the high school. Transportation is provided to and from Manheim Central High School and the LCCTC campus.

1510 Lancaster County Career and Technical Center (LCCTC) Senior Program

Credit Value: 8	**Prerequisite:** Must meet requirements to be a senior
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: The Lancaster County Career and Technical Center (LCCTC) provides career and technical programs at the Mount Joy, Brownstown, and Willow Street campuses. Students who attend the Career and Technical Center (CTC) will have opportunities for experiential learning in a variety of career fields leading to industry-recognized certifications. Students will be eligible to apply to the full-day senior programs offered at the LCCTC campuses during their junior year. Admittance to a senior program will be determined by the LCCTC and students must be in good academic standing at the high school to attend the CTC in their senior year. Those students electing to attend the CTC during their senior year of high school will be required to meet the high school's graduation requirements. As part of the LCCTC curriculum, students will earn their fourth credit of mathematics and English Language Arts while attending the CTC. Transportation is provided to and from Manheim Central High School and the CTC campus.

1511 Lancaster County Career and Technical Center (LCCTC) Senior Program, PM

Credit Value: 4	**Prerequisite:** Must meet requirements to be a senior
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: The LCCTC provides half-day Advanced Health Careers programs at the Mount Joy, Brownstown, and Willow Street campuses. Students who participate in this program will shadow health care 107 professionals in a variety of clinical settings to observe patient care, practice ethical standards, confidentiality, leadership, and professionalism when interacting with patients, clients, and coworkers, and develop their interest in a health care profession by using college level curriculum. Students will be eligible to apply to the Advanced Health Careers program offered at the Mount Joy CTC campus during their junior year.

Admittance to this program will be determined by the LCCTC and students must be in good academic standing at the high school to attend the CTC in their senior year. Those students electing to attend the CTC during their senior year of high school will still be required to meet the high school's graduation requirements. Students enrolling in this course will also be required to take two elective credits and their fourth credit of mathematics and English Language Arts at Manheim Central High School. Students enrolling in this program must have their own transportation to and from the LCCTC campus.

1656 Service-Work Program

Credit Value: Other- include this information in the course description.	**Prerequisite:** Must be in good academic standing for anticipated graduation date
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: None	**Learning Format:** Combined experiential and online

Course Description: The MCHS Post-Secondary Transitions Program offers personalized service-work experiences for sophomores, juniors and seniors who are invested in giving back to their community through service. Learners will also participate in an online course to document and reflect upon their experiences. Please note that learners must have transportation (or be able to walk) to and from the location of their internship. Students can take 0.5-2 credits per year.

1758 Dual Enrollment (DE) Elective

Credit Value: Other- include this information in the course description.	**Prerequisite:** Determined by the college/university
Course Level: College Level	**Department Recommendation:** None
Course Fee: Other- include this information in the course description.	**Course is for Students in Grade(s):** Other-include this information in the course description., Determined by the college/university
Course Weight: None	**Learning Format:** Traditional, Online

Course Description: Dual Enrollment (DE) Elective is an opportunity for a student to take an elective course at an approved college/university and simultaneously earn high school credit. The course can be taken at a reduced cost determined by the college/university and can count towards both the student's required elective credits at Manheim Central High School and a college transcript. The student is responsible for the tuition and any

associated fees. Interested students should meet with their school counselor for further information and to enroll in this course. Cost, credits, and eligibility are determined by the college/university.

1752 Dual Enrollment (DE) English Language Arts

Credit Value: Other- include this information in the course description.	**Prerequisite:** Determined by college/university
Course Level: College Level	**Department Recommendation:** None
Course Fee: Other- include this information in the course description.	**Course is for Students in Grade(s):** Other-include this information in the course description.
Course Weight: None	**Learning Format:** Traditional, Online

Course Description: Dual Enrollment (DE) English Language Arts is an opportunity for a student to take an English Language Arts course at an approved college/university and simultaneously earn high school credit. The course can be taken at a reduced cost determined by the college/university and can count towards both the student's English Language Arts graduation requirement at Manheim Central High School and a college transcript. The student is responsible for the tuition and any associated fees. Interested students should meet with their school counselor for further information and to enroll in this course. Cost, credits, and eligibility are determined by the college/university.

1750 Dual Enrollment (DE) Mathematics

Credit Value: Other- include this information in the course description.	**Prerequisite:** Determined by the college/university
Course Level: College Level	**Department Recommendation:** None
Course Fee: Other- include this information in the course description.	**Course is for Students in Grade(s):** Other-include this information in the course description.
Course Weight: None	**Learning Format:** Traditional, Online

Course Description: Dual Enrollment (DE) Mathematics is an opportunity for a student to take a mathematics course at an approved college/university and simultaneously earn high school credit. The course can be taken at a reduced cost determined by the college/university and can count towards both the student's mathematics graduation requirement at Manheim Central High School and a college transcript. The student is responsible for the tuition and any associated fees. Interested students should meet with their school counselor for further information and to enroll in this course. Cost, credits, and eligibility are determined by the college/university.

1754 Dual Enrollment (DE) Science

Credit Value: Other- include this information in the course description.	**Prerequisite:** Determined by the college/university
Course Level: College Level	**Department Recommendation:** None
Course Fee: Other- include this information in the course description.	**Course is for Students in Grade(s):** Other-include this information in the course description.
Course Weight: None	**Learning Format:** Traditional, Online

Course Description: Dual Enrollment (DE) Science is an opportunity for a student to take a science course at an approved college/university and simultaneously earn high school credit. The course can be taken at a reduced cost determined by the college/university and can count towards both the student's science graduation requirement at Manheim Central High School and a college transcript. The student is responsible for the tuition and any associated fees. Interested students should meet with their school counselor for further information and to enroll in this course. Cost, credits, and eligibility are determined by the college/university.

1756 Dual Enrollment (DE) Social Studies

Credit Value: Other- include this information in the course description.	**Prerequisite:** Determined by the college/university
Course Level: College Level	**Department Recommendation:** None
Course Fee: Other- include this information in the course description.	**Course is for Students in Grade(s):** Other-include this information in the course description.
Course Weight: None	**Learning Format:** Traditional, Online

Course Description: : Dual Enrollment (DE) Social Studies is an opportunity for a student to take a social studies course at an approved college/university and simultaneously earn high school credit. The course can be taken at a reduced cost determined by the college/university and can count towards both the student's social studies graduation requirement at Manheim Central High School and a college transcript. The student is responsible for the tuition and any associated fees. Interested students should meet with their school counselor for further information and to enroll in this course. Cost, credits, and eligibility are determined by the college/university.

1760 Dual Enrollment (DE) Wellness and Fitness

Credit Value: Other- include this information in the course description.	**Prerequisite:** Determined by the college/university
Course Level: College Level	**Department Recommendation:** None
Course Fee: Other- include this information in the course description.	**Course is for Students in Grade(s):** Other-include this information in the course description.
Course Weight: None	**Learning Format:** Traditional, Online

Course Description: Dual Enrollment (DE) Wellness and Fitness is an opportunity for a student to take a wellness and fitness course at an approved college/university and simultaneously earn high school credit. The course can be taken at a reduced cost determined by the college/university and can count towards both the student's wellness and fitness graduation requirement at Manheim Central High School and a college transcript. The student is responsible for the tuition and any associated fees. Interested students should meet with their school counselor for further information and to enroll in this course. Cost, credits, and eligibility are determined by the college/university.

1655 Internship Program

Credit Value: Other- include this information in the course description.	**Prerequisite:** Must be in good academic standing for anticipated graduation date
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Other- include this information in the course description.	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: None	**Learning Format:** Combined experiential and online

Course Description: The MCHS Post-Secondary Transitions Program offers personalized internship experiences for junior and senior learners invested in exploring their potential career interest post-graduation. Learners will also participate in an online course to document and reflect upon their experiences in the field. Please note that learners must have transportation (or be able to walk) to and from the location of their internship.

Technology and Engineering

Course Listing

Introductory	Electronic Media Pathway	Applied Engineering Pathway	Material Engineering Pathway (Trade & Technical Careers)
Applied STEM	Broadcasting	Architectural Drawing & Design	Design Build
Transportation Systems	Digital Design & Printing	CAD Fundamentals	Product Design and Innovation
	Digital Photography	Energy, Power & Control	Materials and Production Technology
	Film Production	CHS Drone Pilot	Materials and Production Technology II
	Introduction to Video Production		Materials and Production Technology III

1216 Architectural Drawing and Design

Credit Value: 0.5	**Prerequisite:** none
Course Level: Post-Secondary Preparation	**Department Recommendation:** Recommend taking Applied STEM or CAD Fundamentals
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: This course covers topics including architectural styles, house designs, construction materials and techniques, construction costs and financing, room planning, energy conservation, floor plans, exterior elevation views and Computer Aided Drafting (CAD) with Autodesk Revit Design software.

1238 Broadcasting

Credit Value: 1	**Prerequisite:** Introduction to Video Production; Digital Photography
Course Level: Post-Secondary Preparation	**Department Recommendation:** 85% in Introduction to Video Production or Digital Photography
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: The Broadcasting course will further enhance the student's video production experience by combining the skills taught in the Intro to Video Production course with advanced editing and broadcasting skills. Students in this class will produce the daily morning announcement show that is aired to the school. Projects include creating news packages, graphics for broadcast, and student designed projects. Broadcasting is designed for students with a strong interest in journalism and television production. Time will be required outside of class to complete assignments.

1214 CAD Fundamentals

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: CAD Fundamentals is a course in drafting and design techniques with Autodesk software. Course content will emphasize design, problem solving and Computer Aided Drafting (CAD). The course will cover topics in sketching, orthographic projection, dimensioning, section views, and culminating with a hands-on project.

1230 Design Build

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** Applied STEM
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th

Course Weight: 1	**Learning Format:** Traditional

Course Description: In this course, students will design, build and test various models including CO2 dragsters, rockets and tower structures. Emphasis will be upon 3D model design and construction techniques including traditional methods and Laser cutting technology.

1209 Digital Design and Printing

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Learn how to create effective designs using advanced 2D and 3D desktop publishing software. Output your creations using new technologies like 3D printers. Design and produce custom t-shirts with vinyl cutting and direct to garment printing.

1217 Digital Photography

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: In the Digital Photography course, students will learn a variety of photographic techniques while using a DSLR camera, edit their photos with Lightroom and Photoshop, and create a portfolio of their work in Indesign. Taking photographs outside of the school day is required to be successful in this course.

1217O Digital Photography Online

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None

Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Online

Course Description: Have you ever wondered how photographers take such great pictures? Have you tried to take photographs and wondered why they didn't seem to capture that moment that you saw with your eyes? The Online Digital Photography course focuses on the use of a digital device, cell phone, tablet, or digital camera, to capture your pictures. Students will use the basic techniques of composition to build a portfolio of images, capturing people, landscapes, close-ups, and action photographs.

1262 College in the High School - Drone Pilot Training & Certification / CHS GSTC 107

Credit Value: 1	**Prerequisite:** Must be 16 years old
Course Level: College in the High School	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: This College in the High School course is designed to prepare students for the FAA Part 107 Remote Pilot Certification exam. Students will gain in-depth knowledge of essential topics such as remote piloting principles, weather patterns, light planning, and the various uses of drones in industries like photography, mapping, and multi-spectral sensing. Through hands-on light training during dedicated field days, students will gain practical drone piloting experience, learning key techniques and safety protocols. By the end of the course, students will be well-equipped to pass the FAA Remote Pilot Certification exam and begin exploring career pathways in drone technology, aviation, and airport operations. In addition to exam preparation, the course will introduce students to the basics of starting a drone-related business and how drones are transforming industries**.**

1218 Energy, Power & Control

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** Applied STEM
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Energy is all around us, in Energy, Power, & Control we explore energy through project-based learning. Build a generator, create a Rube Goldberg machine, and learn the ins-and-outs of electrical circuits. Come use your energy to discover energy.

1239 Film Production

Credit Value: 1	**Prerequisite:** Introduction to Video Production; Digital Photography
Course Level: Post-Secondary Preparation	**Department Recommendation:** 85% in Introduction to Video Production, Introduction to Electronic Media, or Digital Photography
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: The Film Production course will build upon the skills gained in the Intro to Video Production (Intro to Electronic Media) course. This course places an increased emphasis on advanced camera work and editing/special effects techniques. Students will be required to collaborate with other students to plan, produce, and edit a short film. The Film Production course is designed for students with a career interest in television or film production. Time will be required outside of class to complete projects.

1232 Introduction to Video Production

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Introduction to Video Production will expose students to a variety of software and equipment used in the creation of electronic media and videos. Students will learn tools used to create audio soundtracks, computer animations, and video productions. Students must pass this course prior to taking the Broadcasting or Film courses.

1221 Materials and Production Technology

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** Applied STEM
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Materials and Production Technology is designed to give the learner an overview of various materials and the processes by which to manipulate and transform them. Learners will produce several projects from the processes discussed in the course. Materials used in the course will include but are not limited to; polymers, woods, and composites. Learners will also perform a variety of operations using both traditional woodworking tools and advanced technologies such as Laser Engraving and CNC fabricating.

1223 Materials and Production Technology ll

Credit Value: 1	**Prerequisite:** Materials and Production Technology
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Other- include this information in the course description.	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Materials and Production Technology ll provides learners with an opportunity to expand their knowledge of both traditional and advanced machining not achieved in the first level course. Learners will design, perform cost analysis, and produce 2 woodworking projects at a fraction of the retail cost. Success in this course will involve proper utilization of class time and good planning to produce a quality finished project.
*Learners may incur additional costs for materials due to project selection.

1227 Materials and Production Technology III

Credit Value: 1	**Prerequisite:** Materials and Production Technology
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Other- include this information in the course description.	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Learners will utilize skills previously learned in the production technology program to coordinate a manufactured product with their classmates using traditional and CNC machining techniques. Learners will have the opportunity to design and create projects using a Laser, Milling Machine and Router while using materials that include but are not limited to; polymers, woods, and composites. Success in this course will demand proper utilization of class time and good planning to produce a quality project. *Learners may incur additional costs for materials due to project selection.

1228O Product Design and Innovation

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Online

Course Description: Learners will explore the thinking processes, problem solving strategies, and documentation strategies as they design and model a new or redeveloped product. An emphasis is placed on principles of design, aesthetics, social/cultural considerations as well designing for manufacture. Learners will not be required to make a functional prototype of their design solution; however, 3D modeling will be represented in the CAD portion of the course.

1220 Transportation Systems

Credit Value: 0.5	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th

Course Weight: 1	**Learning Format:** Traditional

Course Description: Transportation Systems will include the study of Land, Water and Aviation/Aerospace Transportation technology. Group and individual projects will include problem solving activities, construction and testing of transportation vehicles and analysis of systems present and future. Mass transportation systems, alternative fuel vehicles, along with economic and environmental impacts of transportation technology will be studied.

World Languages
Course Listing

Level	German	Spanish
1	German I*	Spanish I*
2	German II	Spanish II
3	German III	Spanish III
4	CHS German 0201	AP Spanish Language and Culture Part 1 AP Spanish Language and Culture Part 2 AP Spanish Literature and Culture Part 1 AP Spanish Literature and Culture Part 2

*Courses denoted with an * fulfill the Arts and Humanities graduation requirement.*

1029 Advanced Placement Spanish Language and Culture Part 1

Credit Value: 1	**Prerequisite:** Spanish III
Course Level: Advanced Placement	**Department Recommendation:** Spanish III OR Teacher recommendation
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: The AP Spanish Language & Culture course is a specialized class designed for those students seeking college credit via the AP Spanish Language exam. Part one of this course runs in the fall semester and focuses on topics such as personal relationships, the environment, art and culture, business, and law and justice. AP Spanish Language & Culture continues to aid in the development of oral and written expressions as well as listening and reading comprehension skills. Through presentations, essays, and speaking activities students will learn to more freely respond in Spanish. Students are encouraged to complete the AP Spanish Language & Culture Part 2 course in order to be adequately prepared for the AP Spanish Language and Culture exam.

1031 Advanced Placement Spanish Language and Culture Part 2

Credit Value: 1	**Prerequisite:** AP Spanish Language and Culture Part 1
Course Level: Advanced Placement	**Department Recommendation:** AP Spanish Language and Culture Part 1 OR Teacher recommendation
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: This course is a continuation of AP Spanish Language & Culture. Students will continue their study of Spanish by exploring literature and culture of the Hispanic world. Through a variety of authentic materials from the modern period of Spain and the Americas, students will engage in interpersonal, presentational, and interpretive communication in Spanish. This course is recommended in order to take the AP Spanish Language and Culture Exam.

10350 Advanced Placement Spanish Literature and Culture Part 1

Credit Value: 1	**Prerequisite:** Advanced Placement Spanish Language and Culture Part 2 or placement examination (upon request)
Course Level: Advanced Placement	**Department Recommendation:** Advanced Placement Spanish Language and Culture Part 2 OR teacher recommendation
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1.3	**Learning Format:** Online

Course Description: The AP Spanish Literature & Culture course is conducted entirely in Spanish and was designed for facilitation on Schoology. Students will work through a set list of Spanish prose and poetry to understand the evolution of the Spanish and Latin American cultures through a literary lens. Throughout the entire course, students engage in a variety of activities using authentic material. In addition to the readings, students will also learn how to comment, interpret, and analyze literature. This course requires a considerable amount of reading and participation in analytical discussions both formally and informally. The activities in this course are meant to increase fluency in the language. Students are encouraged to complete the AP Spanish Literature and Culture Part 2 course in order to be adequately prepared for the AP Spanish Literature and Culture exam.

1033O Advanced Placement Spanish Literature and Culture Part 2

Credit Value: 1	**Prerequisite:** Advanced Placement Spanish Literature and Culture Part 1 or placement examination (upon request)
Course Level: Advanced Placement	**Department Recommendation:** Advanced Placement Spanish Literature and Culture Part 1 OR teacher recommendation
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 11th, 12th
Course Weight: 1.3	**Learning Format:** Online

Course Description: Part 2 of the AP Spanish Literature & Culture course is continues to advance students through a set list of Spanish prose and poetry to understand the evolution of the Spanish and Latin American cultures through a literary lens. This course is designed to prepare students to take the AP Spanish Literature and Culture exam.

1018 German I

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Language learning is a lifelong adventure that opens doors to communities, cultures, and personal connections. German I launches students into this adventure through the exploration and study of language structures, vocabulary, and Germanic cultures. Throughout German I students will use the language at a novice level to communicate through a presentation and interpersonally, interpret text and audio, and identify and compare cultural products, practices, and perspectives.

1018T German I>

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None

Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Online

Course Description: This is an online course offered by a third party provider. The online German I course is not aligned with the traditional German program at the high school; students wishing to continue their study of German in person are advised to take the placement test before course registration. This introductory course provides a foundation for students to learn grammar and vocabulary of novice German. The course provides students with basic skills and contextual information for using German. Each unit presents new information, including vocabulary and grammatical structures, and introduces cultural information. At the end of this course, students have the basic skills and contextual information required for using German at a basic level.

1020 German II

Credit Value: 1	**Prerequisite:** German I
Course Level: Post-Secondary Preparation	**Department Recommendation:** 75% or higher in German I or teacher recommendation
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Students who have successfully completed level I are encouraged to continue their study of German. Through the development of interpersonal, interpretive and presentational communication, students can increase proficiency levels beyond the novice stage. Perspectives, practices, and products of the cultures in which the German language is spoken serve as the backdrop and lens through which students will examine language structures and engage communicatively.

1022 German III

Credit Value: 1	**Prerequisite:** German II
Course Level: Honors	**Department Recommendation:** 80% or higher in German II or teacher recommendation
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1.2	**Learning Format:** Traditional

Course Description: This course interrelates culture, grammar, and vocabulary in a communicative manner allowing students to use authentic language in a meaningful way and further advance their proficiency at an intermediate level. Through the development of oral and written expression as well as listening and reading comprehension, German III continues to cultivate world-readiness skills to work collaboratively in a global community.

1025 College in the High School German 0201: Intermediate German I

Credit Value: 1	**Prerequisite:** German III
Course Level: College in the High School	**Department Recommendation:** 80% or higher in German III or teacher recommendation
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1.3	**Learning Format:** Traditional

Course Description: This course is run through the CHS (College in High School) program through the University of Pittsburgh, but taught by the MCHS German teacher. UPitt grades earned in CHS courses appear on an official UPitt transcript, and the course credits are eligible for transfer to other colleges and universities. Students electing not to take this as a CHS course will have German IV reflected on their transcript.

1026 Spanish 1

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Language learning is a lifelong adventure that opens doors to communities, cultures, and personal connections. Spanish I launches students into this adventure through the exploration and study of language structures, vocabulary, and Hispanic cultures. Throughout Spanish I students will use the language at a novice level to communicate through presentation and interpersonally, interpret text and audio, and identify and compare cultural products, practices, and perspectives.

1026T Spanish 1>

Credit Value: 1	**Prerequisite:** None
Course Level: Post-Secondary Preparation	**Department Recommendation:** None
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Online

Course Description: This introductory course provides a foundation for students to learn grammar and vocabulary of novice Spanish. The course provides students with basic skills and contextual information for using Spanish. Each unit presents new information, including vocabulary and grammatical structures, and introduces cultural information. At the end of this course, students have the basic skills and contextual information required for using Spanish at a basic level. The online Spanish I course is not aligned with the traditional Spanish program at the high school; students wishing to continue their study of Spanish in person are advised to take the placement test before course registration.

1028 Spanish II

Credit Value: 1	**Prerequisite:** Spanish I
Course Level: Post-Secondary Preparation	**Department Recommendation:** 75% or higher in Spanish 1 or teacher recommendation
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 9th, 10th, 11th, 12th
Course Weight: 1	**Learning Format:** Traditional

Course Description: Students who have successfully completed Spanish I are encouraged to continue their study of Spanish. Through the development of interpersonal, interpretive and presentational communication, students can increase proficiency levels beyond the novice stage. Perspectives, practices, and products of the cultures in which the Spanish language is spoken serve as the backdrop and lens through which students will examine language structures and engage communicatively.

1030 Spanish III

Credit Value: 1	**Prerequisite:** Spanish II
Course Level: Honors	**Department Recommendation:** 80% or higher in Spanish II
Course Fee: Not Applicable	**Course is for Students in Grade(s):** 10th, 11th, 12th
Course Weight: 1.2	**Learning Format:** Traditional

Course Description: This course interrelates culture, grammar, and vocabulary in a communicative manner allowing students to use authentic language in a meaningful way and further advance their proficiency at an intermediate level. Through the development of oral and written expressions as well as listening and reading comprehension Spanish III continues to cultivate world-readiness skills to work collaboratively in a global community.