## TROTWOOD-MADISON HIGH SCHOOL



HIGH SCHOOL COURSE DESCRIPTION GUIDE 2024-2025

## TROTWOOD-MADISON HIGH SCHOOL



VISION<br>100\% Student Success!

## MISSION

The mission of the Trotwood-Madison City Schools is to graduate all students prepared to excel in a global society with a commitment to lifelong learning by guaranteeing a challenging curriculum facilitated by an innovative and dedicated staff, community participation and state-of-the-art resources in a stimulating atmosphere

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## TROTWOOD MADISON HIGH SCHOOL

## GENERAL ACADEMIC INFORMATION

There are many factors to consider in selecting courses that will meet individual needs for next year. Remember to select courses to fit overall planning which projects beyond the high school years. Interest and ability should determine choices. Experience shows that those who plan an entire high school program early and frequently review the plan will be able to graduate without difficulty. Please note that due to low enrollment and teacher availability, some classes may not be offered. Because of scheduling conflicts and classes closing, a student may not be able to register for every course he/she plans to take during a semester. For this reason, the student should have in mind alternate courses in case the first choice is not available. In cases of limited class enrollment, priority will be given to $12^{\text {th }}$ graders first, $11^{\text {th }}$ graders next, etc.

## SCHEDULING UNDER THE SEVEN-PERIOD DAY

Trotwood- Madison High School is organized on a seven-period day schedule with students taking the same seven classes each day. The seven-period day includes one 30-minute lunch during 5th period and seven 45-minute classes.

## COURSE REGISTRATION

Registration will take place in the spring of each school year. Although students will receive specific instructions during that time from high school personnel, the responsibility for appropriate graduation and career choices rest with students and parents. The counseling staff is available to assist in making decisions related to course selections. One of the most critical functions performed by a school is the registration of students. Based upon registration information, courses are scheduled and teachers are employed for the next year; therefore, it is important that course selections be given serious consideration. After mid-May of each year, changes will be made only to correct scheduling errors or to equalize class enrollments.

## ENROLLMENT

A student enrolling in the district must be accompanied by their parent or legal guardian \& must provide a birth certificate, immunization record, transcripts for grades 10-12, final report card for enrolling 9th grade students, IEP/ETR for special education students \& proof of residency. The application for enrollment can be found on the Trotwood-Madison City Schools website under the parents \& student toolbar, Enroll in Trotwood-Madison link.

## ADVANCED COURSES

TMHS courses eligible for advanced courses with weighted credit (extra points averaged into the student's overall grade average) are limited to those courses listed in this guide as Advanced Placement (AP) courses, College Credit Plus courses, Honors courses, and any high school course taken before $9^{\text {th }}$ grade. To receive weighted credit, students must be enrolled in the course and receive a grade of 60 or higher in the course. The goal of advanced credit courses is to challenge and stimulate students to the highest level of their abilities. Students and parents should be aware of the demanding nature of advanced credit courses.

## GRADE POINT AVERAGE (GPA) AND CLASS RANK

TMCS calculates both an unweighted grade point average (GPA) and a weighted GPA. Trotwood-Madison City Schools' weighted level classes include three levels. The un-weighted GPA is considered the student's GPA and is reported as such. The weighted GPA is only used in the determination of class rank. The college admissions process generally allows for students to indicate if the GPA and class ranking are weighted. Students must have completed two semesters of coursework at Trotwood Madison High School in order to have a GPA calculation which may be used for graduation honors.

## GRADE POINT AVERAGE (GPA) CALCULATION

Class rank shall be determined by averaging the grades for all courses taken for high school credit. Class rank for senior students shall be calculated by taking the accumulated grade points and dividing by the number of courses earned in grades 9-12 and any high school course taken prior to ninth grade for which a student earned state graduation credit. The grade point average shall earn grade points per the weighted grade point scale.

| Grade | Point Value | Honors Point Value | AP \& CCP Point Value |
| :---: | :---: | :---: | :---: |
| $A+(97-100)$ | 4.5 | 4.7 | 4.9 |
| A (93-96) | 4.3 | 4.5 | 4.7 |
| A- (90-92) | 4.0 | 4.3 | 4.5 |
| $B+(87-89)$ | 3.5 | 3.7 | 3.9 |
| B ( 83-86) | 3.3 | 3.5 | 3.7 |
| B- (80-82) | 3.0 | 3.3 | 3.5 |
| $\mathrm{C}+(77-79)$ | 2.5 | 2.7 | 2.9 |
| C (73-76) | 2.3 | 2.5 | 2.7 |
| C- (70-72) | 2.0 | 2.3 | 2.5 |
| $D+(67-69)$ | 1.5 | 1.7 | 1.9 |
| D (63-66) | 1.3 | 1.5 | 1.7 |
| D- (60-62) | 1.0 | 1.3 | 1.5 |
| F (0-59) | 0 | 0 | 0 |

## VALEDICTORIAN/SALUTATORIAN ELIGIBILITY

For a student to be eligible for Valedictorian or Salutatorian at Trotwood-Madison High School, students shall have no established class rank for purposes of graduation honors, such as Valedictorian, until such a time as students have completed two semesters at Trotwood Madison High School. Students entering Trotwood- Madison High School from non-chartered or home-based schooling shall have no established
grade point average (GPA) or class rank for purposes of graduation honors such as Valedictorian until such time as the student has completed six semesters. The final grade point average for Valedictorian and Salutatorian selection will be rounded to the nearest tenth. The final calculation for Valedictorian/ Salutatorian will occur at the end of the third academic quarter.

## TRANSFER CREDIT

Transfer credits \& grades earned from secondary school courses (9-12) in another chartered Ohio institution, or a school approved or accredited by the Department of Education in another state shall be evaluated for credit by the district. Credits from non-chartered schools, community schools, \& schools in foreign countries are evaluated at the discretion of the counseling department. Criteria for placement may include scores on achievement tests, which may be administered by district personnel, recommendation of the sending school, prior academic record, chronological age and social and emotional development of the student, or other criteria deemed appropriate by the principal.
Students enrolled in high school credit bearing courses prior to entry into high school may earn high school credit at Trotwood-Madison High School pending successful completion of coursework.

## SCHEDULE CHANGES

Following course registration in the spring semester, any student-initiated schedule change for the upcoming school year must be completed by the last day of the current school year. The student's counselor or principal must approve other schedule changes within the first 5 days of school and only in the case of improper academic placement in a course.

## SCHEDULE CHANGE GUIDELINES

Only schedules that meet the following criteria will be considered for changes:

- A change is needed to balance a class size.
- Seniors are not enrolled in a course REQUIRED for graduation.
- Students are scheduled in a course for which they already have credit.
- Student is enrolled in a course for which the student does not have the prerequisite.
- Students have an incomplete schedule.
- Students are enrolled/not enrolled in an application/audition course for which they have been approved.
- Student has failed a course and needs to repeat the course.
- Change is needed as a result of a credit earned in summer school.


## STATE ASSESSMENT

In order to receive a diploma from Trotwood- Madison High School, students are required to take all end of course exams, including English II, Algebra I, Geometry, Biology, American History \& American Government. Students must demonstrate competency in math and english by passing the state's Algebra I and English II tests (score of 684 or higher). Students who have taken required tests more than once without passing and have received remedial supports are able to show competency through one of the options below:

- Earn credit for one math and/or one English course through College Credit Plus;
- Demonstrate career readiness through foundational \& supporting activities such as WebXams, Pre-apprenticeships or the Ohio Means Job Readiness seal
- Enter into a contract to enlist in the military upon graduation.

Additionally, students must take the Geometry, Biology, American History \& American Government EOC state exams. More information about state testing requirements can be found by visiting the Ohio Department of Education's State Tests webpage.

## AWARD OF CREDIT

A student must have a cumulative passing grade to receive credit for the course. TMHS awards credits on a semester basis.

## GRADE LEVEL CLASSIFICATION

The classification of high school students is determined based on state credits earned. Based on state credit requirements, all students, in conjunction with parents and counselors, are to develop an academic learning plan that will appropriately pace the academic career to graduate on time. Entering freshman and out-of-district transfer students will be assigned a grade level based on the following credit classification. Reclassification may occur at the beginning of fall semester.

| Grade Level Classification | Earned Course Credits Required |
| :---: | :---: |
| $9^{\text {th }}$ Grade - Freshman | $0-5$ |
| $10^{\text {th }}$ Grade - Sophomore | $5.25-10.25$ |
| $11^{\text {th }}$ Grade - Junior | $10.5-13.75$ |
| $12^{\text {th }}$ Grade - Senior | $14.0+$ |

Students may retrieve credits through participation in a district-approved, credit-recovery for a class in which they have already received instruction. Credit is awarded upon completion of a course.

## EARLY GRADUATION REQUIREMENTS

Students intending to graduate early from their cohort must complete an application with their counselor at least ten months prior to the completion of all coursework. Students intending to graduate early must complete the following steps:

- Complete Early Graduation Application complete with parent signature, stating reason for early graduation.
- Conference with counselor. Students with a cumulative GPA of less than 2.75 do not qualify for early graduation.
- Conference with campus principal \& parent/guardian. If approved at the campus level, the application is sent to the Superintendent for final approval.


## GIFTED EDUCATION PROGRAM/ADVANCED COURSES AND CURRICULUM FOR EXCEPTIONAL LEARNERS

Gifted secondary students have many opportunities to have their learning needs served through Trotwood-Madison High School's Honors \& Advanced Placement courses. Gifted students may also be served through College Credit Plus courses through Ohio colleges and universities.

## SPECIAL EDUCATION PROGRAM

Eligibility for Special Education is determined by state mandated regulations \& follows an extensive process in order to qualify for services. Students receiving home instruction also follow the same process for special education. Students may qualify for special education services in one or more of several categories, including: Autism, Deaf-Blindness, Deafness \& Hearing Impairment, Emotional Disturbance, Cognitive Disability, Multiple Disabilities, Orthopedic Impairment, Other Health Impairment, Specific

Learning Disability, Speech or Language Impairment, Traumatic Brain Injury \& Visual Impairment. Once eligibility is determined, an Individualized Education Plan (IEP) is developed by a team of staff people knowledgeable about the student, including the student's parent/guardian, general education teacher(s), special education teacher(s), a person who can interpret the student's evaluation data \& a school representative (the principal or assistant principal). The IEP will determine the student's long-term \& short-term goals as well as the services needed to achieve those goals. A conference is held at least annually to review the student's progress \& to review the IEP for the following school year.

## CAREER AND TECHNICAL EDUCATION (CTE) PROGRAMS

Career and technical education (CTE) courses prepare students for a wide range of high wage, high skill, and high demand careers. CTE programs of study can lead to college readiness, industry certifications, career preparation, and/or internships. Students learn 21st century workforce skills that employers require in addition to honing leadership qualities that will benefit them in future endeavors. Students have the opportunity to experience CTE courses through Trotwood- Madison High School \& through Miami Valley Career Technical Center (MVCTC) if they are approved for admission into a CTE program at MVCTC.

## ATHLETICS

According to the bylaws of the Ohio High School Athletic Association (OHSAA), all high school students MUST earn passing grades in a minimum of five one-credit courses (or the equivalent) during the immediately preceding grading period to have continuing eligibility. As such, it is the practice of Trotwood Madison High School to enroll all students in a minimum of five one-credit bearing courses (or the equivalent) in order to maintain student eligibility requirements, regardless of when the student's athletic season begins. Students should consult with their coaches, the Athletic Director \& their counselor before dropping a course to ensure that they are meeting the mimic requirements to maintain athletic eligibility.

## GRADUATION REQUIREMENTS

In order to graduate from Trotwood-Madison High School, students must meet the standards adopted by the Ohio Department of Education \& the Trotwood-Madison City Schools School Board. It is the ultimate responsibility of students to track \& complete all credits necessary for graduation. Any student who fails to meet the district's evaluation requirements shall not participate in commencement exercises or receive a diploma. Students may earn a diploma by meeting the following criteria:

- Complete all Trotwood-Madison High School curriculum requirements of 21 credits.
- Pay all outstanding fees and/or debts.
- Take \& pass the state-designated end-of-course exams (EOCs) or take the state-designated EOCs and qualify for one of three competency options for graduation as set by the Ohio Department of Education.
More information about state graduation requirements \& competencies can be found at the Ohio Department of Education's Graduation Requirements website.


## REQUIRED COURSES

These courses are required to fulfill state educational guidelines. A course may or may not have a prerequisite; a prerequisite is a course that must be taken prior to the course under consideration. To receive a high school diploma from TMHS and be eligible to participate in commencement activities, a student must successfully complete the required credits and pass all portions of the required state mandated exit exam.

## ELECTIVE COURSES

In addition to required state courses, students must choose other courses to complete their schedules. The number of electives varies from year to year. Elective courses or credits may be selected from additional core academic courses or from courses in the other departments.

TROTWOOD MADISON HIGH SCHOOL GRADUATION REQUIREMENTS

| Subject | Credit | Course |
| :---: | :---: | :---: |
| English Language Arts | 4 Credits | English 9-12 or equivalent courses <br> Senior project embedded in English 12 \& AP <br> Lit courses. Students who do not pass this <br> required project will not receive credit for <br> English 12. |
| Mathematics | 4 Credits | Must complete the appropriate sequence <br> of HS math courses to include Algebra II or <br> an equivalent course |
| Science | 3 Credits | Physical Science, Life Science \& an <br> Advanced Science elective course |
| Social Studies | 3 Credits | World History, American History, American <br> Government |


| Health | $1 / 2$ Credit | Students will complete their CPR/First Aid <br> curriculum requirement through Health |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Physical Education | $1 / 2$ Credit (2 semesters) | Physical Education classes meet 5 days a <br> week during the semester \& earn .25 credit |  |  |
| Fine Arts | 1 Credit | Art or Music courses |  |  |
| Financial Literacy | $1 / 2$ Credit | Personal Finance or Economics |  |  |
| Electives | 5 Credits | Additional credits from any department |  |  |
| TOTAL | 21.5 Credits |  |  |  |

## GRADUATION SEALS

Students must earn a minimum of two seals, one of which must be a state defined seal.

| State Defined Seals |  |
| :---: | :---: |
| Ohio Means Jobs Readiness Seal | Must complete all of the following: <br> - Demonstrate \& document 15 career ready skills <br> - Work with mentor to confirm skills |
| Industry-Recognized Credential Seal | Must complete one of the following: <br> - Earn a 12 point industry recognized credential through a MVCTC program |
| College-Ready Seal | Earn remediation free scores of the ACT or SAT <br> - ACT: English subscore of 18 or higher, Reading subscore of 22 or higher, Mathematics subscore of 22 or higher <br> - SAT: Reading \& writing subscore of 480 or higher, Mathematics score of 530 or higher |
| Military Enlistment Seal | Must complete one of the following: <br> - Show evidence of enlistment into a branch of the military (provide a signed copy of the DoD form 4) <br> - Participate in the JROTC program for two years |
| Citizenship Seal | Must complete one of the following: <br> - Earn a 3 or higher on Ohio's test for American History \& for Government <br> - Earn a proficient or higher score on AP US History \& a proficient or higher score on AP Government tests (prior to 12th grade) <br> - Earn a grade of B or higher in a CCP American History \& a CCP Government class |


| Science Seal | Must complete one of the following: <br> - Earn a 3 or higher on Ohio's state assessment for Biology <br> - Earn a 2 or higher on one AP Science exam (prior to 12th grade) <br> - Earn a B or higher in a CCP Science course |
| :---: | :---: |
| Honors Diploma Seal | Earn 1 of 5 Honors diplomas |
| Seal of Biliteracy | Must complete all of the following: <br> - Demonstrate English proficiency through state assessment, ACT or OELPA <br> - Demonstrate world language proficiency through AP or ACTFL testing |
| Technology Seal | Earn a B or higher in a related CCP technology course |
|  | Locally Defined Seals |
| Community Service Seal | Must complete all of the following: <br> - 60 hours of community service at an approved organization <br> - Complete log of hours signed off by organization <br> - Log sheet must be turned in yearly <br> - Community service project must be proposed \& approved by service evaluator <br> - In-school examples: peer mentoring, Freshman transition, New Student Welcome Committee, ROTC, Volunteering at other buildings <br> - Out of school examples: church, VBS, YMCA, hospital \& medical facilities, Metro Parks, food banks, clothing drives, etc. <br> ***TMHS will accept other district approved documentation for seals if a student transfers. Students who transfer will need to meet the minimum amount of hours per year, equaling 15 hours per year. <br> ***If a student transfers in second semester of senior year students will need to meet 15 hours of community service. This requirement includes out of state students. |
| Fine \& Performing Arts Seal | Must complete one of the following: <br> - Students may complete a minimum of two credits in ANY of the Fine \& Performing subject areas: These areas include Music, Band, Dance, Theater, Visual \& Graphic Art (including Yearbook \& Journalism). <br> OR <br> - 1 credit in Fine \& Performing Arts \& participation in 10 hours of community/school performance. |


|  | -OR hours of Fine \& Performing Arts related <br> community/volunteer service. |
| :--- | :--- |
| Student Engagement Seal | Students must complete all of the following: <br> -Participate in at least one student group, extracurricular or <br> sport for a minimum of three units (ex. A complete season, <br> school year of activity, etc.) <br> -Meaningful participation in any activities that meet outside <br> of the school day \& club/group that meet during the school <br> day or relevant class (ex. Yearbook or Journalism) <br> -Signed documentation of participation by <br> advisor/coach/athletic director/ teacher on an annual basis <br> - Students who are ineligible due to discipline or academic <br> issues cannot count the season/year toward this seal as <br> determined by administration |

More information about graduation seals can be found by visiting the Ohio Graduation Requirements webpage.

## OHIO ACADEMIC HONORS DIPLOMA

High school students can gain state recognition for exceeding Ohio's graduation requirements through an Academic Honors Diploma through high-level coursework, college \& career readiness tests \& real-world experiences that challenge students. In order to qualify, students must meet 7 of the 8 criteria \& must meet all other general graduation requirements.

| Subject | Credit | Course |
| :---: | :---: | :---: |
| English Language Arts | 4 credits | English 9-12, AP or CCP English |
| Mathematics | 4 credits | Algebra I, Geometry, Algebra II \& 1 other <br> higher level math course, AP or CCP Math |
| Science | 4 credits, including 2 of <br> advanced Science courses | Physical science, Life science \& 2 higher <br> level science courses, AP \& CCP Science |
| Social Studies | 4 credits | World History, American History, <br> Government \& 1 additional Social Studies <br> elective including AP \& CCP courses |
| World Languages | 3 credits of one world <br> language, or no less than 2 <br> units of two world <br> languages | Credits from sequential, proficiency-based <br> courses (ex. Spanish I \& Spanish II, French i <br> \& French II) fulfill the honors diploma <br> requirement. |


| Fine Arts | 1 credit | Music or Art courses taken for high school |
| :---: | :---: | :---: |
| credit |  |  |$|$| GPA | 3.5 or higher on a 4.0 unweighted scale |
| :---: | :---: |
| ACT/SAT Score | ACT: 27 or higher |
|  | SAT: 1280 or higher |

More information about the Ohio Academic Honors Diploma can be found by visiting the Ohio Academic Honors Diploma webpage.

## COLLEGE PREPARATION

## ADVANCED PLACEMENT COURSES

Teachers for AP courses are trained in advanced methodology and curriculum.

- Advanced Placement (AP) Courses

The Advanced Placement Program ${ }^{\circledR}$ (AP®) is a collaborative effort among motivated students, dedicated teachers, and committed high schools, colleges, and universities. Since its inception in 1955, the Program has allowed millions of students to take college-level courses and exams and to earn college credit or placement while still in high school. Sixty percent of U.S. high schools currently participate in the AP Program.

Each AP course has a corresponding exam that participating schools worldwide administer in May. Except for Studio Art, which is a portfolio assessment, AP Exams contain multiple-choice questions and a free-response section (either essay or problem-solving). Spanish and Music Theory both require a recorded submission. AP Exams represent the culmination of AP courses and are thus an integral part of the Program. As a result, TMCS fosters the expectation that students who enroll in an AP course will go on to take the corresponding AP Exam.

Most colleges and universities in the U.S., as well as colleges and universities in more than 30 other countries, have an AP policy granting incoming students credit, placement, or both on the basis of their AP Exam grades.

AP courses require students to perform at the level of a college freshman. A successful score on the examination gives the student college credit or placement for the courses taken in high school, subject to the approval of the student's selected college.

## HONORS COURSES

- Honors Courses

Academic courses that prepare students for future advanced academics courses are referred to as Honors courses. Honors courses can be taken in grades 9-12. Emphasis is given to the skills and strategies students need to succeed in advanced academics courses and in post-secondary education.

The following are indicators of students who typically experience success in Honors and AP courses:

- Completion of prerequisite coursework (ex. summer reading or summer project)
- Successful performance in prerequisite content area courses and/or related courses
- Reading on or above grade level
- Strong study skills and self-motivation faced with challenging material at rapid pace of instruction
- Proficient oral and written communication skills
- Self-discipline to plan, organize, and carry through tasks to completion


## COLLEGE CREDIT PLUS COURSES

College Credit Plus (CCP) is designed to offer high school students college credits by taking courses from a community college or university while still enrolled in high school. CCP promotes rigorous academics \& offers a wide variety of courses to students in grades 7-12 who meet college admission requirements. Students \& parents do not incur a fee for College Credit Plus courses taken through public colleges \& universities.

Students wishing to participate in College Credit Plus should adhere to the following timeline:

- November: CCP Informational meeting held at TMHS
- February: Schedule courses during the registration window
- May: CCP Paperwork due to counselor (intent form, financial responsibility, acknowledgement form), CCP application due to college or university
- May: Placement testing conducted at TMHS or individually through college or university

In order to participate in CCP, students must meet requirements outlined by the college or university. Students must also meet all pre-requisite requirements outlined by the college or university. As CCP courses are college level courses, the amount of work, pace of the course \& rigor of assignments may be much greater than that at TMHS. Grades earned in CCP courses are calculated into the student's TMHS GPA.

A CCP course earning 3 semester hours earns the equivalent of 1 credit at TMHS. A student may not exceed 30 college hours in a given school year through CCP.

## COLLEGE PREP TIMELINE

## GRADE 9

Review courses needed for graduation. Careful consideration should be given to reviewing the four-year graduation plan with your high school counselor and parents. Students will participate in the PSAT 8/9. Students are also encouraged to attend the college fair in the Fall semester with a parent/guardian. Know NCAA (National Collegiate Athletic Association) requirements if you want to play sports in college. Take courses that are challenging and work to your full potential. Be a self-advocate, attend tutorials and do not fall behind in your classes. Start keeping track of extra-curricular activities \& community service hours on a spreadsheet. Many colleges ask for extra-curricular activities \& community service hours in their admissions \& scholarship applications. Tutoring is available at no cost \& is highly recommended to help with courses that require additional support.

GRADE 10
Review courses needed for graduation. Take courses that are challenging and continue working to your full potential. Take the Preliminary SAT (PSAT) which is offered as part of the school day each October. Analyze the PSAT results and establish personal goals in January. Attend the college fair in the Fall semester with a parent/guardian. Continue to review college publications. Begin to visit colleges in the summer, especially if you are interested in a highly selective college. Continue to track your extra-curricular activities, community service activities \& leadership opportunities on your campus \& in your community.

## GRADE 11

Review courses needed for graduation. Confer with parent(s) and the counselor to decide on courses for the senior year and to discuss post-graduation plans. Take challenging courses. Attend the college fair in
the Fall semester with a parent/guardian. Take the PSAT/NMSQT offered during the school day. The student's third year of high school is the year that they are eligible to compete for the National Merit Scholarship based on their PSAT/NMSQT scores. Take the SAT and/or ACT in the late spring. Visit colleges in the summer. Begin work on a college admission essay that may be easily adapted $\&$ sent to various colleges $\&$ for admission $\&$ scholarship purposes. In the Spring, begin to identify teachers, counselors, community members, etc. who can provide you with a positive recommendation letter for college admissions \& scholarships.

## GRADE 12

All seniors students will meet with their counselor one-on-one beginning in late August to discuss graduation \& post-secondary planning. Finalize college choices and send letters/applications to the colleges of your choice. Check with the counseling office, the Internet and the catalog from the college(s) of your choice to apply for any scholarships for which you may qualify. Confer with your counselor in early fall. Attend the college fair in the Fall semester with your parent/guardian and plan to attend the various FAFSA workshops in the Fall and Spring. Take the SAT and/or ACT and necessary achievement tests before December $1^{\text {st }}$. Send regular decision applications in the fall semester (preferably by December $1^{\text {st }}$ ).

## COLLEGE PREPARATION AND TESTING INFORMATION

## ACT

The American College Testing Program (ACT) is a three-hour multiple-choice test that measures achievement in four areas: English, mathematics, reading, and science reasoning. The optional writing test measures skills in planning and writing a short essay. Each sub-test yields a score of 1-36. Averaging the four tests produces a composite score that is reported on a scale of 1-36. TMCS assumes the cost of the ACT for students in the 11th grade during a Spring school day cohort test. For more information, visit with the school counselor or go to www.act.org.

## SAT

The Scholastic Aptitude Test (SAT) is a three-hour reasoning test of writing/critical language and mathematical abilities with an optional fifty-minute essay administered by the College Board. Students will receive three scores on a 200-800 scale: one for writing/critical reading, one for mathematics, and the optional essay will be scored on a 2-8 scale. The total writing score is a combination of multiple choice questions and an essay. They will make approximately $30 \%$ of the writing section score. For more information, visit with the school counselor or go to www.collegeboard.org.

## ADVANCED PLACEMENT (AP) EXAMS

AP exams give students the opportunity to earn college credit while still in high school. Each AP course is based upon a national course outline equivalent to a college course. AP exams are given in May at the high schools. Policies for granting college credit based on performance on an AP test vary from college to college. Students should consult college admissions offices to determine individual institution policies.

## FINANCIAL AID

The Free Application for Federal Student Assistance (FAFSA) is not available until October 1st. The information for the application is based on income tax returns. Through this application, eligibility is determined for grants, loans, work-study programs, and some scholarships. You may apply online at www.fafsa.ed.gov . TMHS will host various FAFSA completion events throughout the school year for

Senior students \& parents in partnership with various non-profit institutions \& institutions of higher education.

## SCHOLARSHIPS

The best resource for scholarship information is directly from the financial aid office at the college(s) you wish to attend. The counseling office will also have information about local scholarships, which will be posted to the student's Google Classroom as they are made available.

## HIGH SCHOOL TRANSCRIPTS FOR COLLEGE ADMISSION

Students may request their transcript through Parchment or directly through their counselor. Information about how a student may request a transcript through Parchment will be provided via the student's Google Classroom. Students requesting transcripts via Parchment guarantee that their transcript is sent directly \& electronically to the institution of their choosing automatically. Please note that colleges require a final transcript to be sent upon completion of high school graduation requirements. Students who have attended Sinclair College for College Credit Plus during their junior/senior year must request a transcript be sent directly from Sinclair College to the college where admission is being requested.

## HONORS COURSE OFFERINGS

HONORS ENGLISH/LANGUAGE ARTS
HONORS ENGLISH 9
Course Code: 0960
Placement: 9
Credits: 1
Prerequisite: None
NCAA Core Course: Yes
The honors course is designed to prepare students for advanced academic opportunities in English Language Arts such as Advanced Placement courses or College Credit Plus courses. In this course, students will complete an in-depth study of literature through a variety of literary themes in multiple genres: short stories, myths \& legends, poetry, nonfiction, drama \& novels. Research techniques, grammar \& vocabulary study are included in the course. An integrated approach involving reading, writing, listening, viewing, research \& oral communication will be used throughout the course.

## HONORS ENGLISH 10

Course Code: 1060
Placement: 10
Credits: 1
Prerequisite: English 9/ Honors English 9
NCAA Core Course: Yes
The honors course is designed to prepare students for advanced academic opportunities in English Language Arts such as Advanced Placement or College Credit Plus courses. In this course, students will complete an in-depth study of literature through a variety of literary themes: short stories, myths \& legends, poetry, nonfiction, drama \& novels. Advanced reading \& writing skills will be emphasized with a concentration on multi-paragraph compositions \& a research project. Extensive vocabulary will be included in the course. An integrated approach involving reading, writing, speaking, listening, viewing, research \& oral communication will be used throughout the course.

## HONORS MATHEMATICS

HONORS ALGEBRA I
Course Code: 2060
Placement: 9
Credits: 1
Prerequisite: None
NCAA Core Course: Yes
The Honors Algebra I course will look at Algebra I concepts at an accelerated pace. This course provides mastery of algebra skills, including operations with real numbers, simplifying algebraic expressions, solving linear equations \& inequalities, solving quadratic equations, exponential functions, simplifying radicals, operating with polynomials \& factoring polynomials.

## HONORS GEOMETRY

Course Code: 2160
Placement: 9-10
Credits: 1
Prerequisite: Algebra I

## NCAA Core Course: Yes

The honors Geometry course will consist of the study of segments, angles, perpendicular lines, congruent triangles, similar polygons, right triangles, circles, areas, volumes, coordinate geometry \& probability. The first semester of the course will focus on writing proofs while the second semester will focus on the computation process.

## HONORS ALGEBRA II

Placement: 10-12

## Prerequisite: Algebra I/Geometry

Course Code: 2260
Credits: 1
The Honors Algebra II course studies sequences of real numbers, linear functions \& relations, systems of linear open sentences, polynomials \& rational algebraic expressions, radicals, irrationals, quadratic equations, polynomial functions \& complex numbers, exponents \& numerical computation, quadratic
relations \& systems, logarithms, conics, trigonometric \& circular functions, \& trigonometric identities \& formulas.

# ADVANCED PLACEMENT® ${ }^{\circledR}{ }^{\left(P^{\circledR}\right)}$ COURSE OFFERINGS 

## AP ENGLISH/LANGUAGE ARTS

## AP LANGUAGE \& COMPOSITION

Course Code: 1270
Placement: 11
Credits: 1
Prerequisite: English 9\&10/ Honors English 9\&10
NCAA Core Course: Yes
The AP Language \& Composition course will prepare students for the Advanced Placement English Language \& Composition exam. The course will strengthen the effectiveness of students' writing through close reading $\&$ frequent practice in the application of rhetorical strategies. Students will become critical readers of predominantly nonfiction works. Students enrolled in an Advanced Placement course are expected to take the corresponding AP exam.

## AP LITERATURE \& COMPOSITION

Course Code: 1170
Placement: 12
Prerequisite: English 9\&10/ Honors English 9\&10/ English 11/ AP Lang
Credits: 1
The AP Litatur \& Com Literature \& Composition course will prepare students for the Advanced Placement English Literature \& Composition exam. Students enrolled in AP Literature \& Composition will read closely, employ rhetorical strategies, participate in classroom discussions \& write analytically. This course is an intensive study of literature \& writing at a collegiate level. Students enrolled in an Advanced Placement course are expected to take the corresponding AP exam.

## AP FINE ARTS

## AP STUDIO ART

Course Code: 5060
Placement: 10-12
Credits: 1
Prerequisite: Art I
nCAA Core Course: No
This course is designed for students who are seriously interested in \& committed to the practical experience of visual art. AP Studio Art is not based on a written exam; instead the course guides students through the rigorous preparation of a portfolio (in either Drawing, 2D Design, or 3D Design) to be submitted for evaluation at the end of the school year. Class time will be spent making artworks that fulfill each student's chosen portfolio, viewing images, discussing contemporary art, and participating in peer critiques.All students create a digital portfolio of their artwork that may be used for college admissions.

## AP MATHEMATICS

AP PRE-CALCULUS
Course Code: 2360
Placement: 11-12
Credits: 1
Prerequisite: Algebra I/ Geometry/Algebra II or equivalent
NCAA Core Course: Yes
The honors Pre-Calculus course is a continuation of the study of algebra \& is designed to prepare college-bound students for entry-level college mathematics courses. Content in this course includes Algebra II skills, logarithmic functions, inequalities, matrices, sequences \& series, mathematical induction, complex numbers, the binomial theorem, graphing conics, limits \& basic differentiation. Trigonometry topics include triangles, radian measures, identities \& trigonomic equations, graphing inverse functions, complex numbers \& vectors.

NCAA Core Course: Yes
This Calculus course is designed to prepare students for the Advanced Placement Calculus AB exam. The AP Calculus course is equivalent to a year of college-level calculus. The course covers limits, derivatives, integrals, differential equations \& their applications. Students enrolled in the AP Calculus course are expected to take the AP exam for AB Calculus.

## AP SCIENCE

AP BIOLOGY
Course Code: 3170
Placement: 10-12
Prerequisite: Biology Credits: 1

AP Biology parallels a college-level introductory biology course for science majors. It includes laboratory work and analysis, college-level reading, essay writing, and class discussions. A college textbook and lab manual will be used. This course will further develop previously taught life science concepts. Students must be willing to spend time outside class reading and analyzing concepts. Areas of study include molecular and cellular biology, biochemistry, cellular energetics, heredity, molecular genetics, evolution, organism biodiversity, and population biology. Students enrolled in the AP Biology course are expected to take the AP Biology exam.

## AP CHEMISTRY

Course Code: 3270
Placement: 10-12
Credits: 1
Prerequisite: Biology/Algebra I
NCAA Core Course: Yes
The Advanced Placement Chemistry course is designed to be equivalent to the general chemistry course that might be taken during the first college year. The course builds on concepts from Honors Chemistry by emphasizing conceptual and mathematical formulation of principles as well as quantitative, inquiry-based laboratory experiments. Students enrolled in the AP Chemistry course are expected to take the AP Chemistry exam.

## AP PHYSICS

## Course Code: 3560

## Placement: 11-12

Credits: 1
Prerequisite: Chemistry/ Algebra II or concurrent enrollment
NCAA Core Course: Yes
Physics is a study of matter and energy and the mathematical relationship between matter and energy. Topics that will be studied in this course include: mechanics (vectors, motion, and forces), properties of matter, thermodynamics, waves, sounds, optics, electricity, and magnetism. Students are expected to have strong algebraic and trigonometric skills to use in problem solving. Laboratory experiments will be an integral part of this course. This course is highly recommended for students planning a career in science, engineering, or medicine. Students enrolled in the AP Physics course are expected to take the AP Physics exam.

## AP SOCIAL STUDIES

## AP WORLD HISTORY

## Course Code: 4160

Placement: 9
Credits: 1
Prerequisite: None
NCAA Core Course: Yes
This advanced survey course in world history will focus on significant world events, people and places from 1600 to the present. This class is designed to introduce students to significant historical ideas and events that have helped shape the world today. The students will study political, economic, geographic,
religious and cultural events throughout the world, including Africa, Asia, Europe, Middle East and the Americas. Students will be expected to work both independently and cooperatively with peers to comprehend, analyze, and present their thoughts on the many topics through discussion, writings, and projects.

## AP AMERICAN HISTORY

## Course Code: 4270

## Placement: 10

 Credits: 1Prerequisite: World History
NCAA Core Course: Yes
This course is designed to provide students with the analytical and factual knowledge necessary to think critically about the problems and issues in American History. The course will examine colonization through the 20th Century U.S. and its interaction with world events from six perspectives: American heritage, world interaction, economics, cultural and ethnic groups, democratic processes and citizenship rights and responsibilities. Students will participate in debates, reading and interpreting primary sources. Students will utilize higher level thinking skills and connect American History to relevant current events. Students should possess a strong foundation in reading, writing and critical thinking skills, as the workload of this course is extensive and demanding. Students will be evaluated on their ability to write free responses and document-based essays as well as critical book reviews. Students are expected to take the Advanced Placement test for United States History.

## AP AMERICAN GOVERNMENT

Course Code: 4370
Placement: 11
Credits: 1
Prerequisite: World History/American History
NCAA Core Course: Yes
This AP course will provide students with the analytical skills and factual knowledge necessary to critically assess problems and materials in US government and political science. This course will assess the procedures of the legislative, executive, and judicial branches within our federal system of government. The role of political parties, interest groups, the media, elections, and political officials' accountability will be analyzed. Economic forces and their impact on government decisions will be explored. This course covers all areas of political theory, foreign policy, and political history. Students will assess political materials, their relevance to a given political problem, their reliability, and their importance. Advanced reading comprehension and critical thinking skills are necessary for the outside reading assignments that encompass a large part of the course. It is expected that each student will take the AP Government exam.

## AP HUMAN GEOGRAPHY

Course Code: 4670
Placement: 9-12
Credits: 1

## Prerequisite: None

NCAA Core Course: Yes
The purpose of the AP Human Geography course is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of the Earth's surface. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice.

## AP AFRICAN-AMERICAN HISTORY

Course Code: 4500
Placement: 11-12
Credits: 1
Prerequisite: World History/American History
NCAA Core Course: Yes
This multidisciplinary course examines the breadth of African American experiences through direct encounters with rich \& varied sources, drawing from the fields of literature, the arts \& humanities, political science, geography, science \& more.

# TROTWOOD-MADISON HIGH SCHOOL COURSE OFFERINGS 

## CAREER TECH EDUCATION


#### Abstract

AGRIBUSINESS \& PRODUCTION SYSTEMS AGRICULTURE, FOOD \& NATURAL RESOURCES Course Code: 3800 Placement: 9-10 Credits: 1 Prerequisite: None NCAA Core Course: No This first course in the career field is an introduction to Agricultural and Environmental Systems. Students will be introduced to the scope of the Agricultural and Environmental Systems career field. They will examine principles of food science, natural resource management, animal science \& management, plant \& horticultural science, power technology and bioscience. Students will examine the FFA organization and Supervised Agricultural Experience programs. Throughout the course, students will develop communication, leadership and business skills essential to the agriculture industry.


## SCIENCE \& TECHNOLOGY OF FOOD

Course Code: 3820
Placement: 9-10
Credits: 1
Prerequisite: Agriculture, Food \& Natural Resources
NCAA Core Course: No
Students will examine the research, marketing, processing and packaging techniques applied to the development of food products. Learners will examine nutrient content and their chemical makeup, while applying principles of chemistry to the development of food products. They will examine and implement food safety, sanitation, and quality assurance protocols. Government regulations and food legislation will be examined and the implications to food science and technology will be identified.

## ANIMAL \& PLANT BIOTECHNOLOGY

Course Code: 3830
Placement: 10-12
Credits: 1
Prerequisite: Agriculture, Food \& Natural Resources/ Sci. Tech of Food
NCAA Core Course: No Learners will apply principles of chemistry, microbiology and genetics to plant and animal research and product development. Students will apply genetic principles to determine genotypes and phenotypes. Students will describe the parts and functions of animal and plant cells and their importance in biochemistry. They will perform restrictive enzyme digests, Polymerase Chain Reactions and apply principles of nucleic acid blotting. This course will examine applications of Central Dogma Theory and other Molecular-Genetics Technologies.

ENVIRONMENTAL SCIENCE FOR AGRICULTURE \& NATURAL RESOURCES

## Course Code:3850

Placement: 11-12 Credits: 1
NCAA Core Course: No
Prerequisite: None
Students will study relationships between organisms and their environment. Principles of biogeochemical cycles, air-water-land relationships, non-point pollution, and wetlands will be applied. Students will examine fundamentals of resource development, agriculture sustainability, energy needs and pollution control. They will analyze and interpret data gathered from studies on the ecosystem.

Throughout this course, students will develop responses to environmental problems and develop management strategies for responsible conservation and resource development.

## BUSINESS \& ADMINISTRATIVE SERVICES FUNDAMENTALS OF BUSINESS \& ADMINISTRATIVE SERVICES

Course Code: 5700

## Placement: 9-10

Credits: 1
Prerequisite: Business Foundations
NCAA Core Course: No
This is the first specialty course in the Business \& Administrative Services field. It introduces students to the specializations offered in Business \& Administrative Services. Students will obtain fundamental knowledge \& skills in general management, human resources management, operations management, business informatics \& office management. They will acquire knowledge of business operations, business relationships, resource management, process management \& financial principles. Students will use technological tools \& applications to develop business insights.

## OFFICE MANAGEMENT

Course Code: 5710
Placement: 9-10
Credits: 1
Prerequisite: Business Foundations/ Fundamentals of Bus.
NCAA Core Course: No
Students will apply techniques used to manage people \& information in a business environment.
Students will learn to build relationships with clients, employees, peers \& stakeholders \& to assist new employees. They will manage business records, gather \& disseminate information \& preserve critical artifacts. They will also examine contracts, internal controls \& compliance requirements. Business office tools \& applications will be emphasized.

## HUMAN RESOURCE MANAGEMENT

Course Code: 5730
Placement: 11-12
Credits: 1
Prerequisite: Business Foundations/ Fundamentals of Bus.
NCAA Core Course: No
Students will develop human resource strategies to obtain, retain \& effectively use talent throughout the organization. Students will utilize technology to create job applications, job descriptions, \& job profiles to support the talent acquisition process. They will learn to recruit applicants, administer employment assessments, conduct background investigations \& make/communicate hiring decisions. Students will also develop employee handbooks \& establish performance improvement processes. Rewards \& recognition practices, relationship management \& compliance will be addressed.

## OPERATIONS MANAGEMENT

Course Code: 5720
Placement: 11-12
Credits: 1
Prerequisite: Business Foundations/ Fundamentals of Bus.
NCAA Core Course: No
Students will learn to plan, organize \& monitor day-to-day business activities. They will use technology to plan production activities, forecast inventory needs, \& negotiate vendor contracts. Students will also calculate break-even, set cost-volume-profit goals, \& develop policies \& procedures to promote workplace safety $\&$ security. They will design sustainability plans $\&$ use lean $\&$ six sigma principles to plan for quality improvement. Corporate management, internal controls \& compliance will be emphasized.

## EDUCATION \& TRAINING

FOUNDATIONS OF EDUCATION \& TRAINING
Course Code: 8000
Placement: 9-10
Credits: 1
Prerequisite: None
NCAA Core Course: No
In this first course in the career field, students will examine the goals of education $\&$ training as well as environments in which education \& training are delivered. They will identify learners' \& stakeholders'
roles, rights \& responsibilities in educational systems; assess legal \& ethical issues related to education; \& determine careers of interest in education \& training. Employability skills \& state requirements for becoming an educator will also be addressed.

## EDUCATION PRINCIPLES

Course Code: 8110

## Placement: 9-10

Credits: 1
Prerequisite: None
NCAA Core Course: No
In this first course in the Teaching Professions pathway, students will research the historical perspectives \& theories of education used in the forming of their own personal education philosophy. Students will assess legal, ethical \& organizational issues. Additionally, students will assess developmentally appropriate practices \& identify challenging issues associated with teaching children with diverse needs. Career planning, professional guidelines $\&$ ethical practices will also be emphasized.

## CHILD \& ADOLESCENT DEVELOPMENT

Course Code: 8200
Placement: 11-12
Credits: 1

## Prerequisite: None

NCAA Core Course: No
Students will examine \& apply the theoretical foundations of human growth \& development to child \& adolescents. Additionally, learners will determine children's learning styles; stage of social, emotional \& cognitive development; \& needed accommodations in educational settings. Throughout the course, family \& community engagement, cultural influences on learners \& language growth \& development will be emphasized.

## CLASSROOM MANAGEMENT

Course Code: 8300
Placement: 11-12
Credits: 1
Prerequisite: None
NCAA Core Course: No
Students will apply developmentally appropriate techniques to advance learners' social \& emotional growth. They will create classroom environments to maximize the learning potential of each learner. Additionally, learners will create \& enforce classroom rules, establish classroom routines, \& model self-discipline for learners. Conflict resolution, positive discipline \& behavior-modification techniques will be emphasized throughout the course.

## Communities, Schools and Stakeholders:

Course Code: 8320
Placement: 11-12
Prerequisite: Foundations of Educations \& Training
Students will examine the relationship of families, communities and schools in the growth and development of learners. They will implement strategies to actively involve families and communities in child development and learning, determine community resources and services available to families and schools, and act as advocates for students and learning. Throughout the course, working with socially, culturally, linguistically diverse families will be emphasized.

## HEALTH SCIENCE

EMT PREPARATION
Course Code: 9800
Placement: 11-12
Credits: 1
Prerequisite: None
NCAA Core Course: No
The EMT preparation course builds a foundation of knowledge \& skills to prepare students for the EMT I course. Students will learn introductory information about emergency medicine and caring for the sick \& injured. Students will learn basic medical information that will prepare them for hands-on experiences in the EMT I course. This course counts toward an Advanced Science credit for graduation.

The Emergency Medical Technician course provides students with the information needed to understand the care of the sick \& injured at the emergency technician level. Students will formulate out of hospital care for patients with medical complaints, apply patient assessment processes \& formulate out of hospital care for patients with traumatic complaints. Students will also engage in psychomotor skills labs for the sick \& injured at the emergency medical technician level.Upon successful completion of the EMT I course, students will be able to sit for the National Registry EMS exam.

## INFORMATION TECHNOLOGY

## DESIGN TECHNIQUES

## Course Code:8400

Placement: 9-11
Prerequisite: None
Students will learn techniques for transforming photographic images, through use of digital cameras, computers, and mobile devices. To accomplish this, they will learn software photo editing techniques including layering, color correction, masking, and special effects using current commercial and open source programs and applications.

## CREATING \& EDITING DIGITAL GRAPHICS

Course Code:8410
Placement: 10-12
Credits: 1
Prerequisite: None
NCAA Core Course: No
Students will learn to design, develop, \& produce interactive media projects, web sites, \& social media contexts. Students will demonstrate methods of creating professional quality media using commercial \& open source software.

## MULTIMEDIA \& IMAGE MANAGEMENT TECHNIQUES

Course Code:8420
Placement: 10-12
Credits: 1
Prerequisite: None
NCAA Core Course: No
Students will apply principles of image creation, management procedures, \& multimedia techniques as they create, revise, optimize, \& export graphics for video, print \& web publishing. The course will address issues related to web based publishing, social media \& security. Students will utilize current commercial \& open source languages, programs \& applications.

## VIDEO \& SOUND

Course Code:8430
Placement: 11-12
Credits: 1
Prerequisite: None
NCAA Core Course: No
Students will create professional video and audio productions for distribution in traditional and new media channels. Students will plan, produce, edit, and launch media products. Students will develop scripts and storyboards, compose shots and operate cameras, capture sounds using microphone hardware, apply special effect techniques, and edit to achieve the final product. Students will be able to use animation and graphic design for video.

MANUFACTURING
MANUFACTURING
Course Code: 9510
Placement: 11-12
Credits: 1
NCAA Core Course: No

This course is a double blocked course beginning in the 11th grade year. Students will learn the production processes applied across manufacturing operations. Students will be able to demonstrate a broad array of technical skills with an emphasis given to quality practices, measurement, maintenance and safety. Students will have the opportunity to test to become a Certified Production Technician (CPT) through the Manufacturing Skills Standards Council (MSSC) at the end of the program in their 12th grade year.

## ELECTIVES

## COLLEGE \& CAREER READINESS

Course Code: 9500
Placement: 11
Credits: 0.50
Prerequisite: None
NCAA Core Course: No
Students enroll in the College \& Career Readiness course their 11th grade year in order to prepare for their post-secondary goals. Students will learn about college entrance requirements, military enlistment requirements \& apprenticeship acceptance requirements. Students will be exposed to various representatives \& recruiters for various post-secondary programs \& opportunities throughout the state of Ohio. Students will leave the College \& Career Readiness course with clearly defined post-secondary goals \& the steps necessary to be successful in their chosen pathway.

## COLLEGE CREDIT PLUS LAB

Course Code: 9055
Placement: 9-12
Credits: 0
Prerequisite: None
NCAA Core Course: No
Students who are enrolled in College Credit Plus (CCP) courses through Sinclair may elect to add the College Credit Plus lab into their schedule. In the lab, students have the opportunity to work on CCP coursework \& work with a TMHS teacher mentor who may assist students in finding relevant deadlines, communicating with their professors \& choosing CCP courses for upcoming semesters.

ACADEMIC LAB - CREDIT RECOVERY LAB
Course Code: 9130
Placement: 10-12
Credits: 0
Prerequisite: None
NCAA Core Course: No
Students who are deficient in their credits may be enrolled in a credit recovery period in which they are expected to make up their deficient credits at an accelerated pace. Students will recover deficient credits through the Apex learning platform, which can be accessed during the school day \& anywhere that the student has an internet connection.

## FINANCIAL LITERACY

Course Code: 5645
Placement: 9-12
Credits: 0.50
Prerequisite: None
NCAA Core Course: No
This course meets the personal financial literacy graduation requirement. In this course, students will learn how to manage money \& grow wealth. Specifics include budgeting, banking, credit, purchasing \& wise consumer practices. Students will engage in real-world projects to learn about real estate \& methods of saving. Students will also explore stocks, bonds, etc.

## JROTC

Course Code: 7400
Placement: 9-12
Credits: 1

## Prerequisite: None

NCAA Core Course: No
JROTC is designed to help students become better citizens in their own community. JROTC gives cadets the opportunity to learn how to follow, how to lead, understand the value of teamwork through practical experience, the importance of attention to detail, as well as the application of problem-solving techniques \& decision-making methods. Cadets are issued \& required to wear the Army class B uniform once per week. Cadets practice marching \& participate in rigorous physical training weekly. The JROTC curriculum consists of academic courses on topics such as leadership, communication, foundations for success, wellness, fitness \& first aid, citizenship, American military history, \& map reading.

This course supports STEM education in that students will learn about engineering, engineering design process, documentation, and conduct various team projects and challenges while designing and building a land (VEX) robot and underwater rover (SEAPERCH) system to solve an engineering challenge based on an identified problem/ situation. Students utilize technology in the classroom to research ideas and develop programming codes. Students will maintain detailed engineer journals for their projects, including sketches, reprints, and written documentation. The course also helps to prepare students for responsible leadership roles within the school and their community, as well as prepare them to be successful academically with basic study skills and habits necessary for high school and beyond. The program is a stimulus for promoting graduation from high school and provides instruction and rewarding opportunities that benefit the student, community, and nation. This course is a prerequisite for those seeking Robotics 2.

## ROBOTICS II (LAND \& AIR)

Course Code: 7515

Placement: 10-12
Prerequisite: Robotics I

This course builds upon the knowledge learned in Robotics 1 (a prerequisite for Robotics 2). This course supports STEM education in that students will continue to learn about engineering, engineering design process, documentation, and conduct various team projects and challenges while designing and building an advanced land (VEX) robot and drone system to solve an engineering challenge based on an identified problem/ situation. Students utilize technology in the classroom to research ideas and develop programming codes. Students will maintain detailed engineer journals for their projects, including sketches, reprints, and written documentation. The course also helps to prepare students for responsible leadership roles within the school and their community, as well as prepare them to be successful academically with basic study skills and habits necessary for high school and beyond. The program is a stimulus for promoting graduation from high school and provides instruction and rewarding opportunities that benefit the student, community, and nation, by preparing those 16 years and older for the Drone Pilot License Test, which will provide significant job or career opportunities.

## LEAN SIX SIGMA CERTIFICATION

Course Code: 9600
Placement: 11-12
Credits: 0.50

## Prerequisite: None

NCAA Core Course: No
This course is designed to teach students the leadership \& problem-solving skills they need to become certified Lean Six Sigma Yellow Belts \& Green Belts through Maximum Potential. Students will solve problems in their campus/community in group settings moving through problem solving models. Students who complete the Yellow Belt certification will earn a 3 point Industry Recognized Credential \& students who successfully complete the Green Belt certification will earn a 6 point Industry Recognized Credential as defined by the Ohio Department of Education.

## LEADERSHIP EXCELLENCE CERTIFICATION \& FEMA CERTIFICATION

## Placement: 10-12

## Prerequisite: None

Course Code: 9610

Students in this course will work toward earning a 3 point Industry Recognized Credential in Leadership Excellence through Maximum Potential. Students will learn important concepts of business management \& decision-making \& will work through various projects that involve business decision-making. The

FEMA certification course allows students to earn up to 10 points toward an Industry Recognized Credential as a pathway toward graduation in FEMA Incident Command Systems. Students will learn the foundation, history, features \& organizational structure of the incident command system \& how it coordinates with other national emergency management systems.

## MICROSOFT APPLICATIONS

Course Code: 7425
Placement: 9
Prerequisite: None Office Suite, including Word, Excel, and PowerPoint. High-utility skill sets will be grown, such as creating and managing documents, formatting text, creating tables and lists, applying references and inserting and formatting objects, developing integrated formulas for calculations and charting, compiling business-quality reporting, and the encompassing of all into presentations. These functions serve as the basis for understanding the fundamentals of business-oriented communication and etiquette in a professional environment through a full range of media.

## HEALTHY AND SAFE FOODS

Course Code: 6335
Placement: 9-12

## Prerequisite: None

Credits: . 5

This course is designed to focus on the science of food and nutrition. Experiences will include food safety and sanitation, culinary technology, food preparation and dietary analysis to develop a healthy lifestyle with pathways to career readiness. The following curriculum will be taught throughout the semester: Kitchen Equipment \& Management, Kitchen Safety \& Sanitation, Dietary Guidelines \& MyPlate, Carbohydrates \& Fiber, Proteins \& Fats, and Vitamins Minerals \& Water.

## FRESHMAN FOCUS

Course Code: 8010
Placement: 9-12
Prerequisite: None
Credits: . 5

A sudents with the academic and social knowledge and skills they need to increase the likelihood of a great high school experience and a better adapted student.

## ENGLISH / LANGUAGE ARTS

## ENGLISH 9

Course Code: 0900

## Placement: 9

Credits: 1

## Prerequisite: None

NCAA Core Course: Yes
This course focuses on strengthening students' fundamental skills in reading, writing, listening, viewing \& speaking. Students will explore themes in multiple genres: short stories, myths \& legends, poetry, nonfiction, drama \& novels. Research techniques, grammar \& vocabulary study are included in the course. An integrated approach involving reading, writing, listening, viewing, research \& oral communication will be used throughout the course.

## HONORS ENGLISH 9

Course Code: 0960
Placement: 9
Credits: 1
Prerequisite: None
NCAA Core Course: Yes
The honors course is designed to prepare students for advanced academic opportunities in English Language Arts such as Advanced Placement courses or College Credit Plus courses. In this course, students will complete an in-depth study of literature through a variety of literary themes in multiple genres: short stories, myths \& legends, poetry, nonfiction, drama \& novels. Research techniques, grammar \& vocabulary study are included in the course. An integrated approach involving reading, writing, listening, viewing, research \& oral communication will be used throughout the course.

## ENGLISH 10

Course Code: 1000
Placement: 10
Credits: 1
Prerequisite: English 9
NCAA Core Course: Yes
Students will explore \& analyze a variety of themes using multiple genres: short stories, myths \& legends, poetry, nonfiction, drama \& novels. Fundamental reading \& writing skills will be developed in composition. Research techniques \& vocabulary will be included in the course.

## HONORS ENGLISH 10

Course Code: 1060
Placement: 10
Credits: 1
Prerequisite: English 9/ Honors English 9
NCAA Core Course: Yes
The honors course is designed to prepare students for advanced academic opportunities in English Language Arts such as Advanced Placement or College Credit Plus courses. In this course, students will complete an in-depth study of literature through a variety of literary themes: short stories, myths \& legends, poetry, nonfiction, drama \& novels. Advanced reading \& writing skills will be emphasized with a concentration on multi-paragraph compositions \& a research project. Extensive vocabulary will be included in the course. An integrated approach involving reading, writing, speaking, listening, viewing, research \& oral communication will be used throughout the course.

## ENGLISH 11

Course Code: 1100
Placement: 11
Prerequisite: English 9\&10/ Honors English 9\&10
Credits: 1
NCAA Core Course: Yes
Students in this course will explore \& analyze a variety of themes using multiple genres from American literature. Fundamental reading \& writing skills will continue to be developed in composition. Researching techniques \& vocabulary skills will be included. An integrated approach involving reading, writing, listening, viewing, research \& oral communication will be used throughout the course.

## AP LANGUAGE \& COMPOSITION

Course Code: 1270

## Placement: 11

Prerequisite: English 9\&10/ Honors English 9\&10
NCAA Core Course: Yes
The AP Language \& Composition course will prepare students for the Advanced Placement English Language \& Composition exam. The course will strengthen the effectiveness of students' writing through close reading \& frequent practice in the application of rhetorical strategies. Students will become critical readers of predominantly nonfiction works. Students enrolled in an Advanced Placement course are expected to take the corresponding AP exam.

## AP LITERATURE \& COMPOSITION

Course Code: 1170
Placement: 12
Credits: 1
Prerequisite: English 9-10/ Honors English 9-10/ English 11/ AP Lang
NCAA Core Course: Yes
The AP Literature \& Composition course will prepare students for the Advanced Placement English Literature \& Composition exam. Students enrolled in AP Literature \& Composition will read closely, employ rhetorical strategies, participate in classroom discussions \& write analytically. This course is an intensive study of literature \& writing at a collegiate level. Students enrolled in an Advanced Placement course are expected to take the corresponding AP exam.

## ENGLISH LANGUAGE ARTS ELECTIVES

## AFRICAN AMERICAN LITERATURE

## Course Code: 1725

## Placement: 10-12

Credits: . 5
Prerequisite: English 9/ Honors English 9
NCAA Core Course: No
Students enrolled in this intensified course will examine the works of major African-American writers \& the corresponding issues in mass cultural perspectives, with attention to topics such as gender, race, identity, class, family \& community in fiction \& nonfiction works.

## CREATIVE WRITING

## Course Code: 1335

Placement: 10-12
Prerequisite: English 9/ Honors English 9
Credits: . 5

In this course, students will develop many writing strategies useful across the curriculum. Students will take notes, read examples in class \& provide thoughtful analysis of their own writing as well as peers. Students will study writers' markets and will be encouraged to submit pieces for publication. All students are expected to demonstrate understanding of the recursive nature of the writing process, effectively applying the conventions of usage and the mechanics of written English. technologies. Students in the Yearbook course will learn to work cooperatively and professionally with one another to complete assignments with time constraints. Students enrolled in the Yearbook course are expected to work on the Yearbook outside of the regular school day \& are also responsible for Yearbook sales \& advertising sales.

## FINE ARTS

ART
ART I
Course Code: 5015
Placement: 9-12
Credits: 1
Prerequisite: None
NCAA Core Course: No
Art I is the foundation class which introduces the elements and principles of art through varied experiences. Students will begin to develop the skills and techniques used by artists in a wide variety of careers, while engaging in the basics of art criticism and art history. Some outside class work is expected.

ART II
Placement: 10-12
Prerequisite: Art I
Students continue to build on the skills and techniques introduced in Art I. Students will begin to work with increasingly complex processes and media while developing an individual solution to class problems. Individual research and outside class work are an expectation.

## ART III

Placement: 11-12
Course Code: 5035

## Prerequisite: Art I/ Art II

Credits: 1

The Art 3 course is for students interested in establishing an inquiry based approach to communicating their personal voice. The course is centered on increasing aptitude in various materials and connecting concepts to visual choices. Within this investigative framework, students begin to make work that can clearly communicate divergent personal vision. Students in Art 3 will be asked to consistently reflect on their work and process, researching art and artists and engaging in class discourse. Artists will be introduced to contemporary artists and art practices. Students in Art three will discuss the meaning of art by studying copyright and appropriation and answering questions about originality in their own work. As in any upper level course, students do homework and sketchbook assignments.

## ART IV

Course Code: 5035
Placement: 12
Prerequisite: Art I/ Art II/ Art III
Credits: 1
NCAA Core Course: No
The course is centered on developing a high quality body of work around an individual visual concern. Within this inquiry based framework, visual works are expected to demonstrate practice, experimentation, and revision. Students in Art IV will be asked to continuously reflect on their work and process. Students will continue to investigate historical and contemporary art and artists to inform their practice.

## CERAMICS I

Course Code: 5075

## Placement: 10-12

Credits: . 5
Prerequisite: Art I
NCAA Core Course: No
Ceramics I is an introduction of the medium of clay as an expressive and functional art form. Students will learn a variety of basic hand building construction methods and will be required to complete assignments of both functional pottery and sculpture. Students will also learn basic techniques for glazing the works they create in class. Students will gain an understanding of the tools and equipment necessary to operate a ceramic studio as well as an overview of the history and aesthetics of ceramics as
an art form. Student critiques will provide feedback and strengthen students' skills in critical thinking and problem solving.

## CERAMICS II

Course Code: 5175
Placement: 10-12
Credits: . 5

## Prerequisite: Art I/ Ceramics I

NCAA Core Course: No
Ceramics II is a continuation of skill building in working with clay as an expressive medium. Students will continue to explore methods of hand building in clay, and will explore various clay bodies as they continue to experiment with the process of working in this medium. Students in Ceramics II will begin their introduction to wheel throwing, and will have the chance to practice and develop their skills. Students will further examine ceramic history and aesthetics as well as contemporary ceramic art. Assignments will include both functional and expressive sculptural work and students are encouraged to continue to move towards an individual approach and style in their ceramic art. Out of class work in the form of required sketchbook assignments and research, along with the student critiques, will provide feedback and strengthen students' skills in critical thinking and problem solving.

## CRAFTS

Course Code: 5105
Placement: 10-12
Credits: . 5
Prerequisite: Art I
NCAA Core Course: No
Students enrolled in the Crafts course will engage in hands-on projects such as tie dye, clay pottery, batik, relief painting, soft sculpture, basketry, paper mache, needlework \& weaving. The Crafts course pairs with the Jewelry course.

## JEWELRY

Course Code: 5115
Placement: 10-12
Credits: . 5
Prerequisite: Art I
NCAA Core Course: No
Students enrolled in the Jewelry class will explore the concepts \& traditions of metal \& fiber design. Students will engage in metal \& wire construction, casting, etching \& enameling. The Jewelry course pairs with the Crafts course.

## SCULPTURE

Course Code: 5045
Placement: 10-12
Credits: . 5
Prerequisite: Art I
NCAA Core Course: No
The Sculpture course allows students to engage in creative building \& construction processes including ceramics, paper mache, relief, wire construction, junk sculpture, cardboard construction \& mobile balance. The Sculpture course pairs with the Textiles course.

TEXTILES \& FIBERS
Course Code: 5065
Placement: 10-12
Prerequisite: Art I
Credits: . 5
NCAA Core Course: No
The Textiles \& Fibers course teaches students to utilize processes of creation involving fabrics, cords, yarns \& other fibrous materials. The cultural implications of using fiber in art will be examined \& discussed. The Textiles course pairs with the Sculpture course.

This course allows students to focus on the entire process of drawing. Students will engage in observational drawing \& creative interpretation for a more abstract approach to composition. Students will engage with a variety of mediums including pencil, charcoal \& chalk. The Drawing course pairs with the Painting course.

## PAINTING

Course Code: 5095
Placement: 10-12
Prerequisite: Art I
Credits: . 5 This engage in observational painting \& creative interpretation for a more abstract approach to composition. Students will engage with a variety of mediums including watercolor, acrylic \& oil paints. The Painting course pairs with the Drawing course.

## ART HISTORY

Course Code: 5140
Placement: 11-12
Credits: 1
Prerequisite: Art I
NCAA Core Course: No
The Art History course gives students the opportunity to learn about diverse creations of visual art throughout the history of the world. The course, which is arranged chronologically \& geographically, will allow students the opportunity to explore visual art across time \& cultures.

## AP STUDIO ART

Course Code: 5060
Placement: 10-12
Credits: 1

## Prerequisite: Art I

NCAA Core Course: No
This course is designed for students who are seriously interested in \& committed to the practical experience of visual art. AP Studio Art is not based on a written exam; instead the course guides students through the rigorous preparation of a portfolio (in either Drawing, 2D Design, or 3D Design) to be submitted for evaluation at the end of the school year. Class time will be spent making artworks that fulfill each student's chosen portfolio, viewing images, discussing contemporary art, and participating in peer critiques.All students create a digital portfolio of their artwork that may be used for college admissions.

## BAND

BEGINNING BAND

## Course Code: 7805

Placement: 9-10
Credits: 0.50
Prerequisite: Audition
NCAA Core Course: No
The Band course is intended for students participating in the Marching Band. The marching season begins in the Summer in July \& continues through the entirety of football season, competition \& parades. Enrollment in the Band course requires after school practices \& performances. The Band course pairs with the Instrumental Music course.

## INSTRUMENTAL MUSIC

Course Code: 7815

Placement: 9-10
Prerequisite: Audition

Credits: 0.50
NCAA Core Course: No

The Instrumental music course will be the focus of the concert season of the band. Major areas of study will include melodic \& rhythm patterns, major, minor \& pentatonic scales \& melodies. Performances will
also be held on a larger scale. Like the Band course, the Instrumental Music course requires students to participate in practices \& activities after the regular school day. The Instrumental Music course pairs with the Band course.

## ADVANCED BAND

Course Code: 7825

## Placement: 11-12

Credits: 0.50
Prerequisite: Audition
NCAA Core Course: No
The Advanced Band course is intended for upperclassmen participating in the Marching Band. The marching season begins in the Summer in July \& continues through the entirety of football season, competition \& parades. Enrollment in the Band course requires after school practices \& performances. The Band course pairs with the Advanced Instrumental Music course.

## ADVANCED INSTRUMENTAL MUSIC

Course Code: 7835
Placement: 11-12
Credits: 0.50
Prerequisite: Audition
NCAA Core Course: No
The Advanced Instrumental music course will be the focus of the concert season of the band. Major areas of study will include melodic \& rhythm patterns, major, minor \& pentatonic scales \& melodies. Performances will also be held on a larger scale. Like the Band course, the Instrumental Music course requires students to participate in practices \& activities after the regular school day. The Advanced Instrumental Music course pairs with the Advanced Band course.

## CHOIR

CONCERT CHOIR
Course Code: 7610
Placement: 9-12
Credits: 1
Prerequisite: None
NCAA Core Course: No
The Concert Choir course is designed for entry-level singers. The basic skills of singing \& musicianship will be taught. Students will learn the skills necessary for participation in other choirs. Enrollment in the Choir course does require students to perform outside of the regular school day.

## CONCERT CHOIR II

Course Code: 7620
Placement: 9-12
Credits: 1
Prerequisite: None
NCAA Core Course: No
The Concert Choir course is designed for experienced singers. The basic skills of singing \& musicianship will be taught. Students will learn the skills necessary for participation in other choirs. Enrollment in the Choir course does require students to perform outside of the regular school day.

## ECLECTIC BLEND CHOIR

Course Code: 7700
Placement: 9-12
Credits: 1

## Prerequisite: Concert Choir II \& Audition

NCAA Core Course: No
The Eclectic Blend Choir course is an advanced, audition based course for experienced singers. Students in the Eclectic Blend Choir course will incorporate movement into their performances $\&$ will be expected to demonstrate advanced vocal \& dance skills. Enrollment in the Eclectic Blend Choir course requires performances outside of the regular school day.

MUSIC
PIANO I
Course Code: 7955
Placement: 9-12
Credits: . 5

NCAA Core Course: No
The Beginning Piano course incorporates technique for piano \& keyboards \& is intended for students with a serious interest in learning to play piano. The Beginning Piano course will teach students foundational playing skills. The Beginning Piano course is paired with the Piano ll course.

PIANO II
Course Code: 7880
Placement: 9-12
Credits: . 5
Prerequisite: Beginning Piano
NCAA Core Course: No
The Piano II course is designed to directly follow the Beginning Piano course. Students will be given more advanced instruction in piano including song structure, chord progression \& accompaniment styles. Students will focus on more traditional pieces of music.

## MUSIC THEORY

## Course Code: 7500

Placement: 9-12
Credits: 1
Prerequisite: None
NCAA Core Course: No
This year-long elective course is open to any student who is interested in learning more about how music works. Students will listen to selections from \& learn about topics ranging from the theory of music, families of instruments, history of Jazz music \& Hip Hop music.

## MUSIC TECHNOLOGY

Course Code: 7850
Placement: 9-12
Credits: 1
Prerequisite: None
NCAA Core Course: No
Designed for the non-performing student, this course will teach students to utilize technology to create music that is of the individual interest to the student.

## THEATRE ARTS

THEATRE ARTS
Course Code: 7900
Placement: 9-12
Credits: 1
Prerequisite: None
NCAA Core Course: No
Subject matter and experiences are concerned with a wide range of studies and activities including playwriting, dramatic literature, scene design, technical theater, acting, directing, and the supporting arts and crafts of the theater and of selected aspects of video, radio, television and film.

## HEALTH \& PHYSICAL EDUCATION

Trotwood- Madison High School recognizes the physical education option as outlined in the Ohio Core. Students who participate in interscholastic athletics, marching band, JROTC or cheerleading for at least two full seasons will be excused from the high school physical education requirement for graduation. Daily participation paralleling the official sports season must be completed at an attendance level of 90\% for the specific activity in order for the physical education requirement to be excused. Sports seasons are determined by the official starting date of the activity \& conclude with the final formal activity of the group.

Students wishing to earn graduation credit for physical education in interscholastic athletics, marching band, JROTC or cheerleading must complete the Intent to Participate form: High school Physical Education Option form prior to the start of PE option. The Intent to Participate form is filed with the Counseling \& Guidance office at Trotwood-Madison High School.

- The Athletic Director, at the conclusion of each season, will attain a list from the assigned coach/sponsor that designated which students have fulfilled the $90 \%$ attendance \& participation requirement \& share that list with the Counseling \& Guidance office.
- At the conclusion of each school year, the JROTC staff will review the attendance record for all students enrolled in JROTC for the full academic year. Students who have been enrolled in JROTC, earned a passing grade in the course, \& have a $90 \%$ attendance record will be eligible for the PE option.
Students who have zero PE credits at the beginning of their 11th grade year \& who have not been excused from the physical education requirement will be scheduled into a PE course.

HEALTH
Course Code: 7005
Placement: 9-12
Prerequisite: None
Credits: . 5

This course includes material that will help students mature physically, mentally, and socially. Physically, students will learn through the study of body systems, diseases, nutrition, and physical fitness. Mentally and socially, students will learn through the study of personality development, the growing process, human sexuality, and learning to recognize and solve problems of living. The course also includes a study of chemical dependency, community health, communicable diseases, major health problems, consumer health, environmental health, and health careers. Students will earn their CPR/First Aid credential in Health, thus meeting the required credential from the state of Ohio.

## PHYSICAL EDUCATION

Course Code: 7115
Placement: 9-12
Credits: . 25
Prerequisite: None
NCAA Core Course: Yes
Students will learn skills, rules, strategies and sport etiquette in a variety of individual and team sports. Fitness is a part of all Physical Education courses. Students will have the skills and knowledge necessary to develop their own personal physical activity program. Students will assess personal fitness in terms of cardiovascular endurance, muscular strength, muscular endurance, flexibility, and body composition. Realistic, but challenging, individual goals will be established and a program will be designed to meet identified goals. Students will be expected to actively participate in a variety of fitness activities which may include: running, strength building, stretching, determining body fat percentage, and demonstrating proper technique during exercise. Written assignments and evaluations may be given.

Students enrolled in Strength Training will learn to execute a variety of exercise techniques \& routines such as circuit training, resistance training \& agility training. Proper use of equipment \& weight room safety is covered in the course.

## SWIMMING I

Course Code: 7135
Placement: 9-12
Credits: . 5
Prerequisite: PE
NCAA Core Course: Yes
This course follows the American Red Cross' Water Safety Program by providing instruction on swimming safety, swimming \& diving skills. Students have the option to learn to swim or improve their swimming abilities. Students in swimming I will learn how to float, glides, kicks, front crawl, combined backstroke, breath control, rhythmic breathing, elementary backstroke, deep water comfort, water games \& safety skills.

SWIMMING II
Course Code: 7145
Placement: 10-12
Credits: . 5
Prerequisite: PE
NCAA Core Course: Yes
The Swimming II course will allow students to further refine their swimming skills to a more intermediate or advanced level. Students will learn advanced swimming strokes \& skills such as turns, backstroke, breaststroke, butterfly, \& lap swimming for fitness.

## MATHEMATICS

In the area of mathematics, college entrance requirements vary. Students should check with the college of their choice prior to planning their high school mathematics courses.

## ALGEBRA I

## Course Code: 2000

Placement: 9
Credits: 1
Prerequisite: None
NCAA Core Course: Yes
This course provides mastery of algebra skills, including operations with real numbers, simplifying algebraic expressions, solving linear equations \& inequalities, solving quadratic equations, exponential functions, simplifying radicals, operating with polynomials \& factoring polynomials.

## HONORS ALGEBRA I

## Course Code: 2060

Placement: 9
Credits: 1
Prerequisite: None
NCAA Core Course: Yes
The Honors Algebra I course will look at Algebra I concepts at an accelerated pace. This course provides mastery of algebra skills, including operations with real numbers, simplifying algebraic expressions, solving linear equations \& inequalities, solving quadratic equations, exponential functions, simplifying radicals, operating with polynomials \& factoring polynomials.

## GEOMETRY

Course Code: 2100
Placement: 9-10
Credits: 1
Prerequisite: Algebra I
NCAA Core Course: Yes
Students enrolled in Geometry study measurement and the relations of planar figures including segments, lines, angles, polygons $\&$ circles \& of solids such as rectangular solids, pyramids, cylinders, cones \& spheres. Course content also includes the development of deductive reasoning \& an introduction to basic trigonometry.

HONORS GEOMETRY
Course Code: 2160
Placement: 9-10
Credits: 1
Prerequisite: Algebra I
NCAA Core Course: Yes
The honors Geometry course will consist of the study of segments, angles, perpendicular lines, congruent triangles, similar polygons, right triangles, circles, areas, volumes, coordinate geometry \& probability. The first semester of the course will focus on writing proofs while the second semester will focus on the computation process.

## ALGEBRA II

Course Code: 2200
Placement: 10-12
Credits: 1
Prerequisite: Algebra I/Geometry
nCAA Core Course: Yes
The Algebra II course is a continuation in the study of Algebra. Course content includes concepts from Algebra I, polynomials, negative \& rational exponents, complex numbers, relations \& functions \& an introduction to trigonometry.

The Honors Algebra II course studies sequences of real numbers, linear functions \& relations, systems of linear open sentences, polynomials \& rational algebraic expressions, radicals, irrationals, quadratic equations, polynomial functions \& complex numbers, exponents \& numerical computation, quadratic relations \& systems, logarithms, conics, trigonometric \& circular functions, \& trigonometric identities \& formulas.

## MODELING \& QUANTITATIVE REASONING

Course Code: 2350
Placement: 12
Credits: 1
Prerequisite: Algebra I/Geometry/Algebra II
NCAA Core Course: Yes
This course may be taken as an alternative to pre-calculus. The Modeling \& Quantitative Reasoning course focuses on the use of percentages, statistics, probability, functions \& graphing, data analysis, \& Geometry. Enrollment in this course prepares students for college placement exams \& entry-level college math courses. The Modeling \& Quantitative Reasoning course will incorporate projects as a basis of learning. Technology will be an important tool for students enrolled in the course.

## PROBABILITY \& STATISTICS

Course Code: 2390
Placement: 11-12
Credits: 1
Prerequisite: Algebra I/Geometry
NCAA Core Course: Yes
In this course students collect, analyze, and interpret one- and two variable data using statistical methods. They examine sampling techniques and experimental designs. Additionally, students expand their understanding of probability and randomness to develop an understanding of data distributions and inference for one-sample categorical and quantitative data. Each major topic will contain exploratory mathematical modeling.

## PRE-CALCULUS

Course Code: 2370
Placement: 11-12
Prerequisite: Algebra I/ Geometry/Algebra II or equivalent
Credits: 1

The pre-calculus course is a continuation of the study of algebra $\&$ is designed to prepare college-bound students for entry-level college mathematics courses. Content in this course includes Algebra II skills, logarithms, sequences, series, binomial expansion, trigonometry \& an introduction to calculus.

## AP PRE-CALCULUS

Course Code: 2360
Placement: 11-12
Credits: 1
Prerequisite: Algebra I/ Geometry/Algebra II or equivalent/ Pre- Calculus NCAA Core Course: Yes
The honors Pre-Calculus course is a continuation of the study of algebra \& is designed to prepare college-bound students for entry-level college mathematics courses. Content in this course includes Algebra II skills, logarithmic functions, inequalities, matrices, sequences \& series, mathematical induction, complex numbers, the binomial theorem, graphing conics, limits \& basic differentiation. Trigonometry topics include triangles, radian measures, identities \& trigonomic equations, graphing inverse functions, complex numbers \& vectors.

## AP CALCULUS

Placement: 12
Prerequisite: Algebra I/ Geometry/Algebra II

Course Code: 2380
Credits: 1
NCAA Core Course: Yes

This Calculus course is designed to prepare students for the Advanced Placement Calculus $A B$ exam. The AP Calculus course is equivalent to a year of college-level calculus. The course covers limits, derivatives, integrals, differential equations \& their applications. Students enrolled in the AP Calculus course are expected to take the AP exam for AB Calculus.

## MATH ELECTIVES

MATH LAB
Course Code: 0900
Placement: 9
Credits: 1
Prerequisite: None
NCAA Core Course: Yes
Students enrolled in the Math Lab course will engage in activities designed to reinforce Algebra 1 \& prerequisite skills in order to improve student achievement. Math Lab qualifies as an elective course.

## SCIENCE

Students need three credits in science for graduation: a physical science credit, a life science credit \& one unit of advanced study in one or more of the following sciences: chemistry, physics or other physical science; advanced biology or other life science or other earth or space science.

## PHYSICAL SCIENCE

Course Code: 3000
Placement: 9
Credits: 1
Prerequisite: None
NCAA Core Course: Yes
Physical Science is the foundational science class from which other high school science classes build. This Physical Science explores introductory chemistry and physics in preparation for future state testing and for future high school science courses such as Biology, Chemistry and Physics. Topics of discussion include atomic structure, chemical reactions, states of matter, energy, motion, electricity, star formation, and the development of lab skills

## BIOLOGY

Course Code: 3100
Placement: 10
Prerequisite: None
Credits: 1
NCAA Core Course: Yes
This course investigates the composition, diversity, complexity and interconnectedness of life on Earth. Topics of study will include heredity, evolution, cellular biology, genetics, biochemistry and ecology to provide a framework to explore the living world, the physical environment and the interactions within and between them. Students engage in inquiry based laboratory work, including dissections of preserved materials, to understand and explain the complexity of organisms.

## HONORS BIOLOGY

Course Code: 3160
Placement: 10
Credits: 1
Prerequisite: None
NCAA Core Course: Yes
This course investigates the composition, diversity, complexity and interconnectedness of life on Earth. Topics of study will include heredity, evolution, cellular biology, genetics, biochemistry and ecology to provide a framework to explore the living world, the physical environment and the interactions within and between them. Students engage in inquiry based laboratory work, including dissections of preserved materials, to understand and explain the complexity of organisms.

## SCIENCE ELECTIVES

## AP BIOLOGY

Course Code: 3170
Placement: 10-12
Credits: 1
Prerequisite: Biology
NCAA Core Course: Yes
AP Biology parallels a college-level introductory biology course for science majors. It includes laboratory work and analysis, college-level reading, essay writing, and class discussions. A college textbook and lab manual will be used. This course will further develop previously taught life science concepts. Students must be willing to spend time outside class reading and analyzing concepts. Areas of study include molecular and cellular biology, biochemistry, cellular energetics, heredity, molecular genetics, evolution, organism biodiversity, and population biology. Students enrolled in the AP Biology course are expected to take the AP Biology exam.

Prerequisite: Biology/ Algebra I
NCAA Core Course: Yes
This course will extend chemistry concepts studied in Physical Science before giving a broad overview of the rest of the Chemistry discipline. This course will require fewer math skills as ideas will be covered conceptually where applicable; however, a solid knowledge of basic algebra, percentages, rounding and fractions will be essential.

## AP CHEMISTRY

Course Code: 3270
Placement: 10-12
Credits: 1

## Prerequisite: Biology/Algebra I

NCAA Core Course: Yes
The Advanced Placement Chemistry course is designed to be equivalent to the general chemistry course that might be taken during the first college year. The course builds on concepts from Honors Chemistry by emphasizing conceptual and mathematical formulation of principles as well as quantitative, inquiry-based laboratory experiments. Students enrolled in the AP Chemistry course are expected to take the AP Chemistry exam.

## EARTH SCIENCE

## Course Code: 3050

## Placement: 9

 Credits: 1Prerequisite: None
NCAA Core Course: Yes
Students enrolled in Earth Science will study the origins, structure \& composition of Earth, minerals \& rocks, plate tectonics \& various Earth processes such as volcanoes, earthquakes, mountain building, weathering \& erosion. The course will also include weather \& climatology, oceanography, astronomy \& Earth's history. The course will include elements of surface \& ground water, glaciation, wind, water \& ocean currents.

## HUMAN ANATOMY \& PHYSIOLOGY

Course Code: 3300
Placement: 10-12
Credits: 1
Prerequisite: Biology/Chemistry
NCAA Core Course: Yes
Anatomy and Physiology is the study of the human body's structure and function. Throughout this course, students will investigate the human body systems. This class is helpful in preparation for any profession in the medical field. Dissections are integral components of the course.

## PHYSICS

## Course Code: 3500

Placement: 11-12
Credits: 1
Prerequisite: Chemistry/ Algebra II or concurrent enrollment
NCAA Core Course: Yes
Physics is a study of matter and energy and the mathematical relationship between matter and energy. Topics that will be studied in this course include: mechanics (vectors, motion, and forces), properties of matter, heat, waves, sounds, optics, electricity, and magnetism. Laboratory experiments will be an integral part of this course. Physics is strongly recommended for any student interested in further study of science or engineering

## AP PHYSICS

Course Code: 3560
Placement: 11-12
Credits: 1
Prerequisite: Chemistry/ Algebra II or concurrent enrollment
NCAA Core Course: Yes
Physics is a study of matter and energy and the mathematical relationship between matter and energy. Topics that will be studied in this course include: mechanics (vectors, motion, and forces), properties of
matter, thermodynamics, waves, sounds, optics, electricity, and magnetism. Students are expected to have strong algebraic and trigonometric skills to use in problem solving. Laboratory experiments will be an integral part of this course. This course is highly recommended for students planning a career in science, engineering, or medicine.

ENVIRONMENTAL SCIENCE FOR AGRICULTURE \& NATURAL RESOURCES
Course Code: 3850
Placement: 11-12
Credits: 1
NCAA Core Course: No
Students will study relationships between organisms and their environment. Principles of biogeochemical cycles, air-water-land relationships, non-point pollution, and wetlands will be applied. Students will examine fundamentals of resource development, agriculture sustainability, energy needs and pollution control. They will analyze and interpret data gathered from studies on the ecosystem. Throughout this course, students will develop responses to environmental problems and develop management strategies for responsible conservation and resource development.

EMT PREPARATION
Course Code: 9800
Placement: 11-12
Credits: 1
Prerequisite: None
NCAA Core Course: No
The EMT preparation course builds a foundation of knowledge \& skills to prepare students for the EMT I course.Students will learn introductory information about emergency medicine and caring for the sick \& injured. Students will learn basic medical information that will prepare them for hands-on experiences in the EMT I course. This course counts toward an Advanced Science credit for graduation.

## SOCIAL STUDIES

## WORLD HISTORY

Course Code: 4100
Placement: 9
Credits: 1
Prerequisite: None
NCAA Core Course: Yes
This course will cover the years of 1700-1980, focusing on the world events of the time period. Events include the Enlightenment, the American, French, Russian and Industrial Revolutions; World Wars, as well as the economic, social and political impacts of those wars. Emphasis is placed on historical themes, cultural influences, and geographical and economic concepts and relationships.

## AP WORLD HISTORY

## Course Code: 4160

## Placement: 9

Credits: 1
Prerequisite: None
NCAA Core Course: Yes
This advanced survey course in world history will focus on significant world events, people and places from 1600 to the present. This class is designed to introduce students to significant historical ideas and events that have helped shape the world today. The students will study political, economic, geographic, religious and cultural events throughout the world, including Africa, Asia, Europe, Middle East and the Americas. Students will be expected to work both independently and cooperatively with peers to comprehend, analyze, and present their thoughts on the many topics through discussion, writings, and projects.

## AMERICAN HISTORY

Course Code: $\mathbf{4 2 0 0}$
Placement: 10
Credits: 1

## Prerequisite: World History

## NCAA Core Course: Yes

This course examines the recent history of the United States of America. Students will examine the political, economic, social, cultural, geographical, and foreign policy history of the United States. This course will begin during the late 19 th century with the explosion of industrialization, immigration, and urban development and the challenges these developments posed for the early 20 th century. The Progressive Era, World War I, the turbulent 20's, the Great Depression, World War II, the Cold Movement, the modern Civil Rights Movement, and the Vietnam War will also be examined in-depth. Students will have the opportunity to study recent events involving women, minorities, politics, contemporary cultural issues and court cases. Students will be expected to complete projects, written reports, oral presentations, and essays, which assess their understanding of the historical and cultural themes

## AP AMERICAN HISTORY

Course Code: 4270

## Placement: 10

Prerequisite: World History
This course is designed to provide students with the analytical and factual knowledge necessary to th critically about the problems and issues in American History. The course will examine colonization through the 20th Century U.S. and its interaction with world events from six perspectives: American heritage, world interaction, economics, cultural and ethnic groups, democratic processes and citizenship rights and responsibilities. Students will participate in debates, reading and interpreting primary sources. Students will utilize higher level thinking skills and connect American History to relevant current events. Students should possess a strong foundation in reading, writing and critical thinking skills, as the workload of this course is extensive and demanding. Students will be evaluated on their ability to write
free responses and document-based essays as well as critical book reviews. Students are expected to take the Advanced Placement test for United States History.

## AMERICAN GOVERNMENT

Course Code: 4300
Placement: 11
Credits: 1
Prerequisite: World History/American History
NCAA Core Course: Yes
This year-long, current event focused course will assess the procedures of the legislative, executive and judicial branches within our federal system of government. The role of political parties, interest groups, the media, elections, and political officials' accountability to the public will be analyzed. This course covers all areas of political theory, foreign policy, and political history. Student debates, discussion groups, government simulations, field observations, guest speakers, and various technology tools may be used. Examination of key documents, which form the basis for the United States of America, will also be a focus of the course. Students are expected to critically evaluate all materials and explore alternative solutions to questions presented.

## AP AMERICAN GOVERNMENT <br> Placement: 11

Course Code: 4370
Credits: 1
Prerequisite: World History/American History
NCAA Core Course: Yes
This AP course will provide students with the analytical skills and factual knowledge necessary to critically assess problems and materials in US government and political science. This course will assess the procedures of the legislative, executive, and judicial branches within our federal system of government. The role of political parties, interest groups, the media, elections, and political officials' accountability will be analyzed. Economic forces and their impact on government decisions will be explored. This course covers all areas of political theory, foreign policy, and political history. Students will assess political materials, their relevance to a given political problem, their reliability, and their importance. Advanced reading comprehension and critical thinking skills are necessary for the outside reading assignments that encompass a large part of the course. It is expected that each student will take the AP Government exam.

## SOCIAL STUDIES ELECTIVES

## ECONOMICS

Course Code: 4645
Placement: 11-12
Credits: . 5

## Prerequisite: None

NCAA Core Course: Yes
This course gives students a thorough understanding of the principles of economics that apply to an economic system as a whole. This course places particular emphasis on the study of national income and price determination, and also develops student's familiarity with economic performance measures, economic growth, and international economics. Students are introduced to fundamental economic concepts such as scarcity and opportunity costs. Students will study comparative advantage to determine the basis on which mutually advantageous trade can take place between countries and to identify comparative advantage from differences in output levels and labor costs. Other basic concepts that are explored include the functions performed by an economic system and the way the tools of supply and demand can be used to analyze a market economy.

This course introduces students to the study of psychology. The course will expose students to the historical beginnings of psychology and its effects on society today. Units on founders, theories of development, personality, memory, learning, the human brain, fields of psychology, and perception provide students a comprehensive view of psychology. Research 72 methods of modern psychology and pertinent experiments will be explored and discussed. This course uses hands-on approaches.

## SOCIOLOGY

Course Code: 4420
Placement: 11-12
Credits: . 5

## Prerequisite:None

NCAA Core Course: Yes
This course introduces students to Sociology, which is the study of human social behavior, groups and organizations, and society. Students will learn how to use the sociological perspective in examining individuals' lives and social experiences. Students will learn that many aspects of life are influenced by the social world in which we live. The key component of this course is to study ourselves as individuals and the society that influences our behavior.

## AP HUMAN GEOGRAPHY

## Course Code: 4670

Placement: 9-12
Credits: 1
Prerequisite:None
NCAA Core Course: Yes
The purpose of the AP Human Geography course is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of the Earth's surface. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice.

## WORLD LANGUAGES

## FRENCH

FRENCH I
Placement: 9-11
Credits: 1
Prerequisite: None
NCAA Core Course: Yes
French I is a beginning course designed to develop basic listening and speaking skills through daily use of the language and frequent use of pre recorded audio materials. Fundamental reading and writing abilities are developed through the use of written exercises and simple reading selections. Practical vocabulary and language structure are stressed throughout the course. A general appreciation of French culture is emphasized through readings, videos, and discussions on selected topics.

## FRENCH II

Course Code: 6520
Placement: 9-12
Credits: 1
Prerequisite: French I
NCAA Core Course: Yes
French II continues the development of the listening and speaking skills through extended conversation and taped exercises. Reading abilities and vocabulary are further expanded through short stories and dialogues. Additional use of language structure is developed through written exercises, brief compositions and short narratives. Appreciation of French culture is further extended through videos, class discussions, and cultural reading materials. The use of French in the classroom is stressed. Entire lessons in the target language may be taught and students will be encouraged to use as little English as possible with the goal of no conversational English use during class time.

## FRENCH III

Course Code: 6530
Placement: 11-12
Credits: 1
Prerequisite: French I/ French II
NCAA Core Course: Yes
French III is designed to refine and further develop the basic skills stressed in levels I and II. Emphasis is placed on finer points of the language structure. Speaking is expanded to numerous planned and spontaneous conversations and narratives. Vocabulary and reading comprehension are further developed through the reading of authentic poems, short stories, and a novel. Writing stresses lengthy but closely guided composition. Appreciation of Francophone culture is further expanded through authentic films, music, projects, and cultural reading materials. The majority of the course will be conducted entirely in French. Students are expected to use little or no English.

## FRENCH IV

Course Code: 6540
Placement: 12
Prerequisite: French I/ French II/ French III
Credits: 1

French IV is conducted entirely in French; this course is designed for students who have shown a high aptitude in language learning and who have successfully completed French III. Students will engage in a wide variety of activities to develop skills in listening, writing, reading and speaking. Emphasis is on authentic texts, both written and auditory. Francophone culture is presented thematically and is an essential part of the course.

## Prerequisite: None

NCAA Core Course: Yes
Spanish I is a beginning course designed to develop basic listening and speaking skills through daily use of the language and frequent use of pre recorded audio materials.Fundamental reading and writing abilities are developed through the use of written exercises and simple reading selections. Practical vocabulary and language structure are stressed throughout the course. A general appreciation of Spanish and Latin American culture is emphasized through readings, videos, and discussions on selected topics.

## SPANISH II

Course Code: 6620

## Placement: 9-12

Credits: 1
Prerequisite: Spanish I
NCAA Core Course: Yes
Spanish II continues the development of the listening and speaking skills through extended conversation and taped exercises. Reading abilities and vocabulary are further expanded through short stories and dialogues. Use of language structure is developed through written exercises, brief compositions and short narratives. Appreciation of Spanish and Latin American culture is further extended through videos, class discussions, and cultural reading materials.Entire lessons in the target language may be taught and students will be encouraged to use as little English as possible with the goal of no conversational English use during class time.

## SPANISH III

Course Code: 6630
Placement: 11-12
Credits: 1

## Prerequisite: Spanish I/ Spanish II

NCAA Core Course: Yes
Spanish III is designed to refine and further develop the basic skills stressed in levels I and II. Emphasis is placed on finer points of the language structure. Speaking is extended to numerous planned and spontaneous conversations and narratives. Vocabulary and reading comprehension are further developed through the reading of simplified plays and short stories. Writing stresses lengthy but closely guided composition. Appreciation of Spanish and Latin American culture is further expanded through videos, guest speakers, projects, and cultural reading materials. The majority of the class will be conducted entirely in the target language. The students will be expected to use little or no English.

## SPANISH IV

## Course Code: 6640

Placement: 12
Credits: 1
Prerequisite: SpanishI/ Spanish II/ Spanish III
NCAA Core Course: Yes Spanish IV is conducted entirely in Spanish; this course is designed for students who have shown a high aptitude in language learning. Students will engage in a wide variety of activities to further develop skills in reading, writing, listening and speaking. In addition, students will learn strategies to analyze authentic texts, both written and oral. Spanish culture and history will be presented thematically.

