

HARPER CREEK HIGH SCHOOL

2018-19
CORE COURSE
SELECTION BOOK

Students and Parents:

The Harper Creek High School Core Course Description Guide offers a comprehensive listing of our school's core course offerings which have been designed as a varied and challenging academic curriculum. Careful planning and selection of courses are important to the successful growth and achievement of academic goals throughout a student's high school career.

Harper Creek High School's primary goal is to provide our students with the skills and competencies needed to be successful citizens and workers in a technological, multi-cultural and dynamic society. This goal can best be achieved through a collaborative partnership with students in rigorous pursuit of high levels of achievement. The high school staff encourages thoughtful selection of courses that meets not only current interests, but prepares students for unknown opportunities and challenges in the future. While success in a rigorous high school curriculum cannot guarantee future success, it will most certainly enable opportunities beyond high school and help prepare our students for a future of their own choosing.

We look forward to the opportunity to partner with you in pursuit of your continued success, both individually and as a member of our learning community.

Dennis Anthony
High School Principal

Mission Statement

The mission of Harper Creek High School is to develop respectful, responsible and reasonable citizens who are life long learners.

Program Selection and Parent Involvement

The staff and administration of Harper Creek High School encourage parents to work with their student to develop a four-year plan for high school that will help the student attain his/her educational and career goals. The world that our students will enter is very different from the one we entered as high school graduates and we must strive to educate, empower and equip our students for a future that is dynamic and ever-changing. Although the traditional four-year college education is required for about a fifth of the jobs in the current labor market, labor statistics indicate that more than half of the available 21st century jobs will require training beyond high school. Our students must be prepared to succeed in post-secondary training. **Good planning in high school is an important aspect of that preparation.**

Standardized Tests

The **PSAT/NMSQT** (Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test) is administered to 10th and 11th grade students each fall. 9th grade students also take the PSAT 8/9 for additional practice. The tests are given in October and again in April to monitor student growth and academic achievement. All students will conclude their Michigan Merit Examination in their 11th grade year by completing the SAT and the M-STEP.

The state-mandated M-STEP summative assessment, also taken in the spring of 11th grade, consists of English Language Arts, Mathematics, Science and Social Studies. This test is required for graduation.

Dual Enrollment

Through dual enrollment, students have the opportunity to earn college credit by taking courses at Michigan public or private, degree-granting institution that chooses to participate.

To be eligible, students must:

- Be enrolled in a high school class.
- Be enrolled in a class that does not duplicate a course already taken at Harper Creek Community High School (course syllabi must be provided)
- Not be enrolled in high school for more than 4 years.
- Have prior approval from the high school principal.
- Have taken and achieved a qualifying score in:
 - *All subject areas of the Michigan Merit Exam.
 - OR
 - *In the subject area of the eligible course a student would like to take.

Interested students will need to see their guidance counselor to determine eligibility and choose a course(s). Harper Creek Community Schools is responsible to pay for the tuition/fees (up to the maximum amount required) and books (if taking for high school credit).

Credits earned through dual enrollment may be counted as high school credit, college credit, or both.

Diploma Requirements

Students will qualify for a diploma when they have:

- Met all requirements for their graduating class
- Met the requirements for graduation through credits earned through the Battle Creek Math/Science Center and CACC, if enrolled in their programs.
- Are in attendance full time (five classes per semester) at HCHS for both semesters of their senior year. (Students who transfer after the nine-week course period will require special arrangements with the transferring school and the HCHS principal)

Certificate of Achievement

Any student who has an IEP at the completion of his or her 12th grade year may receive a Certificate of Achievement in lieu of a diploma for successfully attending Harper Creek High School. While the criteria for earning the Certificate of Achievement are determined by the IEP, in consultation with teachers and parents, the following guidelines will apply:

| | |
|------------------------------------|-------------|
| English Language Arts | 2-4 credits |
| Mathematics | 2-4 credits |
| Science | 2-3 credits |
| Social Studies | 2-3 credits |
| Health & Physical Education | 1 credit |
| Visual, Performing or Applied Arts | 1 credit |
| World Language | 0 credits |
| “On-line Learning Experience” | 1 credit |
| Career Prep/Employability | 1 credit |

ATYP—Academically Talented Youth Program WMU

Students who participate in the ATYP at WMU are eligible for high school credits. Each student received 1 credit per semester for ATYP. Credits for ATYP taken in middle school are applied after the first semester of the student’s 9th grade. See your counselor for more information



HARPER CREEK COMMUNITY SCHOOLS

To make your course selections for the next school year, select from the list of courses for which you qualify and those that align with your career pathway. Every student must be enrolled in five classes each semester. When making selections, pay attention to prerequisites and be sure to select enough classes to fill your school day for five blocks each semester. Most courses fill one block so you would choose ten classes to fill your schedule. Starting with the class of 2020, all students must have an English credit during their senior year. Classes at the Calhoun Area Career Center and the Battle Creek Area Math and Science Center are equivalent to four blocks per school year. Begin by selecting your required courses and then fill in

9th Grade

English: English I

Math: Algebra I

Science: Physical Science

Soc Studies: American History/Geography

P.E.: Physical Education/Health OR Swim/Health

Elective: _____

Elective: _____

Elective: _____

Modified Block (40 Minute): _____

Modified Block (40 Minute): _____

10th Grade

English: English II

Math: Geometry

Science: General Biology

Soc Studies Civics/Econ

Elective: _____

Elective: _____

Elective: _____

Elective: _____

Modified Block (40 Minute): _____

Modified Block (40 Minute): _____

11th Grade

English: English III /Lit & Comp I

Math: Algebra II

Science: Physics or Chemistry or Material Chemistry

Social Studies: World History/Geography

Elective: _____

Elective: _____

Elective: _____

Elective: _____

Elective: _____

Modified Block (40 Minute): _____

Modified Block (40 Minute): _____

12th Grade

English: English IV/Lit & Comp II

Math: Senior Math

Soc Studies: Senior Social Studies

Elective: _____

Elective: _____

Elective: _____

Elective: _____

Elective: _____

Modified Block (40 Minute): _____

Modified Block (40 Minute): _____

Mathematics

Algebra I

Algebra I provides a formal development of the algebraic skills and concepts necessary for students to succeed in advanced courses. In particular, the instructional program in this course provides for the use of algebraic skills in a wide range of problem-solving situations. The concept of function is emphasized throughout the course. Topics include: (1) operations with real numbers, (2) linear equations and inequalities, (3) relations and functions, (4) polynomials, (5) algebraic fractions, and (6) nonlinear equations.

Prerequisite: None

Geometry

Geometry students examine the properties of two- and three-dimensional objects. Proof and logic, as well as investigative strategies in drawing conclusions, are stressed. Properties and relationships of geometric objects include the study of: (1) points, lines, angles and planes; (2) polygons, with a special focus on quadrilaterals, triangles, right triangles; (3) Trigonometry; and (4) Logic, reasoning and proofs. Use of graphing calculators and computer drawing programs are encouraged.

Prerequisite: Completion of Algebra I with 60% or better

Algebra II

This course emphasizes the development of facility with algebraic forms, linear and quadratic expressions, powers and roots, and functions based on these concepts. Logarithmic, trigonometric, polynomial, and other special functions are also studied. Geometric ideas are used throughout the course. Measurement relationships are analyzed from an algebraic viewpoint. Transformations are employed to analyze graphs. Notions of a mathematical system found in geometry (postulates, theorems, etc.) are utilized. Many connections with calculators are made in this course.

Completion of Geometry with 60% or better

Math for Seniors

This course was designed to meet the State of Michigan requirements for a senior math class. Students will learn various concepts in personal finance, as well as other topics in probability and discrete mathematics. This course will contain practical applications of mathematics.

Prerequisites: Completion of Algebra I, Geometry and Algebra II; Must be a senior to enroll in this course.

Pre-Calculus

Pre-Calculus topics emphasize the background theory a student must know to be successful in many calculus courses, including analysis of functions, notions of limit, and analytic geometry. Discrete mathematics topics include formal logic, properties of natural numbers, mathematical induction, sequences, combinatorics, and graph theory. There is also manipulative algebra, handling manipulations that have been de-emphasized in the previous years, and careful development of mathematical reasoning and proof.

Prerequisite: Completion of Algebra II with 60% or better

Mathematics

Statistics

Students in this course will develop their statistical reasoning as they look at real world data. Students will make use of technology as they apply the statistical techniques to the analysis of data. The Advanced Placement course outline for Statistics will be followed and students will be encouraged to take the A.P. exam. Topics covered include: interpreting and observing patterns in data, planning a study based on data collection and analysis, producing models using probability theory and simulations, and using statistical inference to guide the selection of appropriate models. Students will be required to use a graphic calculator outside the classroom.

Prerequisites: Successful completion of Pre-Calculus with 70% or better

Calculus I

This course is the study of calculus with emphasis on the following areas: Functions and Graphs, Limits and Continuity, Differential and Integral Calculus. The Advanced Placement Calculus AB outline will be followed. Students will be encouraged to take the Advanced Placement Exam. It is suggested that students take both Calculus I and A.P. Calculus to best enhance their chances of scoring well on the Advanced Placement Exam.

Prerequisite: Successful completion of Pre-Calculus

A.P. Calculus

This course is a continuation of the topics taught in calculus. It is for students who intend to continue their study of mathematics, and for those who will use calculus in other fields of study. This course covers topics including limits, continuity, the definition of derivative, applications of derivatives, rates of change, properties of graphs, The Fundamental Theorem of Calculus, definite and indefinite integration, slope fields, methods of integration, and applications of derivatives. Instruction and practice on these topics help students develop a solid understanding of functions, graphs, limits, differentiation, and integration. Students anchor their understanding with examples demonstrating the relationship between calculus and the world around them through questions in context. Throughout the course students are required to use multiple approaches to the understanding of calculus concepts. Students must be able to express solutions in numerical, graphical, analytical, and written forms. Students who successfully complete this course will be prepared and expected to take the AP Exam.

Prerequisite: Completion of Calculus with a 'C' or better.

<http://apcentral.collegeboard.com/apc/public/repository/ap-calculus-course-description.pdf>

Language Arts

English I (required)

Students in this class will read and comprehend literature, stories, dramas, and poems as outlined in the common core curriculum. Students will write routinely for a range of tasks and audiences. Students will read a variety of complex texts which may include *Romeo and Juliet*, *The Odyssey*, and *To Kill a Mockingbird*.

Prerequisite: None

English II (required)

This class includes a second year of emphasis on common core curriculum competencies. Students will develop reading strategies, writing skills, and speaking and listening competences. They will read a variety of complex texts which may include *The Crucible*, *A Raisin in the Sun*, *Of Mice and Men*, and *the Adventures of Huckleberry Finn*. Students will also work to prepare for the state assessment in language arts.

Prerequisite: English I

English III

Students in this class will read a variety of complex texts which may include *Night*, *a Shakespearian play*, and *Lord of the Flies*. Students will continue to develop their reading strategies, writing skills, and speaking skills with a focus on real world application. Students will also work to prepare for the state assessment in language arts.

Prerequisites: English II

English IV

Students in this class will read a variety of complex texts which may include *The Great Gatsby*, *Animal Farm*, and *The Things They Carried*. Students will continue to develop their reading strategies, writing strategies, and speaking skills with a focus on real world application.

Prerequisite: English III

Literature and Composition I

Students in this class will read a variety of complex texts which may include *Night*, *Beowulf*, *Canterbury Tales*, *MacBeth*, and *Frankenstein*. Students will continue to study literature and work to develop their critical analysis skills to prepare for college classes.

Prerequisite: English III

Literature and Composition II

Students in this class will focus upon the study of a diversity of literature to effect acquisition of thinking skills and writing effectiveness. These skills and this effectiveness enable students to gain greater control of the world in which they live. Specific thinking skills addressed are those of classifying, analyzing, and synthesis. Texts may include *Their Eyes Were Watching God*, *Things Fall Apart*, *1984*, and *the Great Gatsby*. Note that short stories, poems, and informational texts will be woven into the units and will vary. In addition, supplemental texts may be incorporated for enrichment purposes. Students should be prepared for a college-preparatory schedule of reading and writing in this class. Students should expect to be independent readers of text.

Prerequisite: Completion of Literature and Comp I with teacher approval

AP Literature and Composition

Students in this class will do critical reading, writing, and analysis of both classical and contemporary literature. Through the close reading of select texts, students will deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students will consider a work's structure, style, AP vocabulary and themes; students will incorporate these essential ingredients in their own writing. Students who successfully complete this course will be prepared and expected to take the AP Literature and Composition Exam.

Prerequisites: Completion of Literature and Composition I & II, or with instructor approval. Students must have achieved mastery on the summer reading projects.

Science

General Physical Science (required)

This course provides an introductory study of the nature of matter and energy and the processes of physical and chemical change as matter and energy interact. Students will develop investigative skills as they explore topics in chemistry and physics based on the State Core Curriculum.

9, 10, 11, 12 Prerequisite: None

General Biology (required)

This course fulfills one credit in biological science. Introductory material in genetics, evolution, cell theory, ecology, and biochemistry are covered. Students will engage in laboratory work which stresses understanding of content coverage. This course is aligned with NGSS.

9, 10 Prerequisite: None

General Chemistry (may be used as 3rd required science credit or senior year math related credit if taking Physics or Material Chemistry as science credit)

This class enables students to learn chemistry through experimentation and observation. Concepts, principles, and theories are organized so that students will learn to use them intelligently. Key concepts are introduced at an elementary level and then treated in greater depth. Atomic structure, bonding, the periodic table, ionization energy levels, quantum mechanics, molecular structure, and chemical reactions will be covered. Environmental issues and consumer chemistry will also be covered in this course.

Prerequisites: Successful completion of Physical Science, Biology, and Algebra I

Materials Chemistry (may be used as 3rd required science credit or senior year math related credit if taking Chemistry of Physics as science credit)

This is a science and technology course introducing the concepts and applications of the chemistry of solids materials. Students will learn about the fundamental chemistry of metals, polymers, ceramics and composites through a series of project based units.

Prerequisites: Successful completion of Physical Science, Biology, and Algebra I

Physics (may be used for the 3rd required science credit or senior math related credit if taking Chemistry or Material Chemistry as science credit)

Highly recommended for all high school students, physics covers basic concepts such as the nature of motion, forces, energy, matter, heat, sound, and light. Although some mathematics will be used, the course emphasis' the conceptual understanding of physics.

Prerequisites: General Physical Science and Successful Completion of Algebra I and Geometry

AP Biology

AP Biology is a comprehensive survey of general biology that includes biochemistry, cellular biology, molecular genetics and heredity, biotechnology, diversity, structure and function of organisms, and ecology, and evolution. The two main goals of AP Biology are to help students develop a conceptual framework for modern biology and an appreciation of science as a process. This course will run 1 block per day all year. Students who successfully complete this course would be prepared and encouraged to take the AP Exam.

Prerequisites: Completion of General Biology with a 'B' or better; successful completion of Algebra I, Geometry, General Chemistry or be taking General Chemistry concurrently with the 1st semester of AP Biology.

AP Chemistry

AP Chemistry is a two semester, two credit course that includes the following topics taught in a first year college introductory chemistry course: atomic structure and periodicity, chemical bonding, stoichiometry, gas and solution chemistry, kinetics, equilibrium, and thermodynamics. Students who successfully complete this course are recommended to take the AP Exam. For more information, go to http://www.collegeboard.com/student/testing/ap/sub_chem.html?chem

Prerequisites: Students must have completed General Chemistry with a minimum grade of "B" OR with a grade of "C" AND the recommendation of their General Chemistry teacher. Students must have successfully completed Algebra II

Social Studies

American History and Geography

This course is required for all freshmen, beginning with the class of 2012. It is designed to prepare students to understand more fully the historical, political, and economic development of the United States from Second Industrial Revolution to the present, so that students will be able to fully participate in our democratic society.

Prerequisite: None (Required course for all freshmen)

Civics and Economics

Civics and Economics is a required course involving the study of what makes a democratic society function, and what allows an individual to function as a consumer, producer, and responsible citizen. Students will acquire civic and economic knowledge and skills that will foster a commitment to the fundamental values and principles essential to the continuation of a constitutional democracy.

Prerequisite: Completion of American History & Geography

World History and Geography

World History and Geography is a required course which takes a global and comparative approach to studying the world and its past. Instruction will focus on allowing students to develop a greater understanding of the development of worldwide events, processes, and interactions among the people, cultures, societies, and environment around the world.

Prerequisite: Completion of American History and Civics/Econ

Senior Social Studies

This course is required for graduation. There is a 20 hour community service or senior thesis component that must be completed in the semester that students are enrolled in this class. This course is a study of the structure, activities, and problems of American society. Emphasis is placed upon the political and economic systems, elections, interest groups, public policy, mass media, personal economics, and current events.

Prerequisite: Completion of other required social studies courses)

AP U.S. History

The AP U.S. History course focuses on developing students' understanding of American history from approximately 1491 to the present. The course has students investigate the content of U.S. history for significant events, individuals, developments, and processes in nine historical periods, and develop and use the same thinking skills and methods (analyzing primary and secondary sources, making historical comparisons, chronological reasoning, and argumentation) employed by historians when they study the past. The course also provides seven themes (American and national identity; migration and settlement; politics and power; work, exchange, and technology; America in the world; geography and the environment; and culture and society) that students explore throughout the course in order to make connections among historical developments in different times and places.

Prerequisites: Civics and American History with a grade of B or better and/or teacher recommendation

AP United States Government and Politics

United States Government and Politics will give students an analytical perspective on government and politics in the United States. This course includes both the study of general concepts used to interpret U.S. government and politics and the analysis of specific examples. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. government and politics. Students should become acquainted with the variety of theoretical perspectives and explanations for various behaviors and outcomes. Topics will include constitutional underpinnings of United States government; political beliefs and behaviors; political parties, interest groups, and mass media; institutions of national government; and public policy. Students who successfully complete this course will be prepared and expected to take the AP Exam.

Prerequisite: Civics and American History or teacher recommendation