

# NHS Course Selection for 2019-2020 School Year

## Advanced Placement (AP) Courses

As part of our academic program, Norwood High School is pleased to offer students the opportunity to take Advanced Placement courses that are equivalent in rigor to college-level courses. These demanding courses require higher levels of effort, time, and commitment and are recommended for highly motivated and determined students. Students enrolled in these courses take national exams offered by the College Board in May of each year. College credit is often awarded for passing scores on Advanced Placement tests; however, students must research individual institutions on policies regarding the issuance of college credit. Students must be recommended by a teacher to enroll in AP courses. This determination is made based on a student's current performance in the respective discipline of the AP course. If the AP course is one that does not have a sequence attached to it relative to a specific discipline then it will require teacher approval.

### **ADVANCED PLACEMENT COURSES:**

- ❖ **Junior English – Available to Juniors** This program for highly skilled and motivated students of English is the first half of a two-year freshman college English course. The major goal of instruction is to prepare students to take the AP Literature examination. Students must write with stylistic maturity and an effective command of sentence structure, diction, and organization. Class work is predicated on independent, insightful reading of challenging, thought-provoking works. Most lessons demand constructive participation in class discussions, by supporting assertions through specific textual references, raising pertinent questions, and making connections to students' lives and other literary works. Typical reading assignments are 25-30 pages per night. Grades will be based on assessment of both oral and written work. In addition to the 12 or more major works studied in the school year, during the summer students must read and write about designated works. Assessment of all grade 11 students includes the department-wide midyear exam and the grade 11 final exam.
- ❖ **Senior English – Available to Seniors** This program for highly skilled and motivated seniors is the second half of a two-year freshman college English course. Preparation for the AP Literature examination continues. Students complete an independent research project. Their writing must reveal an ability to choose from and control a wide range of effective writing techniques. At this level discussion is required and may often be student generated. Sophisticated, mature literature chosen from the Advanced Placement Curriculum Guide is the focus of class discussion. Typical reading assignments are 30-35 pages per night. Grades will be based on assessment of both oral and written work. In addition to the major works studied in the school year, during the summer students must read and write about designated works. Assessment of all grade 12 students includes summer reading as well as a midyear and/or final exam.
- ❖ **Spanish 4 – Available to Juniors** The main objective of this course is the development of students' communication skills in Spanish. The course emphasizes conversation and composition and is comparable to a third-year university course. As such, students will watch films and read literature that deal with mature themes for their cultural and historical perspectives. Through the use of authentic materials students will integrate the four skills of listening, speaking, reading and writing.
- ❖ **Spanish 5 – Available to Seniors** This course is for seniors who began their study of AP Spanish as juniors. This course is comparable to a third-year, university course. As such, students will watch films and read literature that deal with mature themes for their cultural and historical perspectives. The course offers an in-depth study of Spanish literature written by a variety of authors required by the College Board. Students are expected to participate in class discussions, write essays, and give oral presentations in Spanish.
- ❖ **French 4 – Available to Juniors** This course is designed for juniors who wish to take the AP French Language and Culture Exam in May of their senior year. It is therefore, a two-year commitment. This course is comparable to a

third-year, second semester university course. As such, students will watch films and read literature that deal with mature themes for their cultural and historical perspectives.

- ❖ **French 5 – Available to Seniors** This is the second year of a two-year sequence begun in French 4AP. Students continue to develop communication skills in French. The course emphasizes conversation and composition and is comparable to a third-year university course. Through the use of authentic materials students will integrate the four skills of listening, speaking, reading and writing.
- ❖ **Calculus – Available to Seniors** Calculus is a course intended for students who have a thorough knowledge of college preparatory mathematics, including algebra, Euclidean geometry, trigonometry, and analytic geometry (rectangular and polar coordinates, equations and graphs, lines, and conics). It is designed to provide students with the fundamentals of a one semester college calculus course. Following the advanced placement syllabus, students will study theory of elementary functions, limits, differentiation, and integration.
- ❖ **Statistics – Available to Juniors or Seniors** Advanced Placement Statistics is a rigorous mathematics course taught at the advanced placement level. It is the equivalent of a one semester, 3 credit university-level Statistics course such as Stat 101. AP Statistics is not calculus based and quite different from calculus and pre-calculus. In fact many students take AP Statistics simultaneously with another math class. The pre-requisite course for AP Statistics is Algebra 2. AP Statistics is divided into four main units; Exploring Data, Producing Data, Probability, and Inference Procedures. Students are required to complete a project each term in addition to and supplementing the curriculum. A major focus of this course is preparation for the nationwide Advanced Placement Statistics exam given in May.
- ❖ **Computer Science – Available to Seniors** The major emphasis of AP Computer Science is on programming methodology, algorithms, and data structures. Applications of computing provide the context in which these subjects are used to develop student awareness of the need for particular algorithms and data structures, as well as to provide topics for programming assignments. An appropriate computer language provides the vehicle for implementing computer-based solutions to particular problems.
- ❖ **Biology – Available to Juniors or Seniors** AP Biology is an intensive, first-year college level biology course. It is designed to prepare the student for the Advanced Placement Biology exam. It includes the interplay of genetics, evolution, energy, and the systems of living processes. Taxonomy and the evolutionary significance of organism processes will be discussed. Students will be encouraged to take the Advanced Placement Biology exam.
- ❖ **Chemistry – Available to Seniors** AP Chemistry is an intensive, first-year college level chemistry course. It is designed to prepare students for the Advanced Placement Chemistry exam. Topics emphasized include acids and bases, equilibrium, kinetics, thermochemistry, electrochemistry, and redox reactions. Students will be encouraged to take the Advanced Placement Chemistry exam.
- ❖ **Physics I – Available to Juniors** AP Physics is an intensive, first-semester college level Physics course. It is designed to prepare students for the Advanced Placement Physics I exam. The topics of Newtonian Mechanics, such as velocity, acceleration, force, momentum, and rotation are discussed, along with an introduction to electric circuits. Labs provide concrete demonstrations of physical principles. Students will be encouraged to take the Advanced Physics I: Algebra Based exam.
- ❖ **Physics II – Available to Seniors** AP Physics is an intensive, second-semester college level Physics course. It is designed to prepare students for the Advanced Placement Physics II exam. The topics of electricity and magnetism, fluid dynamics, thermodynamics, waves, optics, and modern physics are discussed. Labs provide concrete demonstrations of physical principles. Students will be encouraged to take the Advanced Placement Physics II: Algebra Based exam.
- ❖ **Psychology – Available to Seniors** This course will give you a detailed overview of psychological science, with particular emphasis on certain areas, and aim to prepare you for the advanced placement exam in the spring. The

fast pace of the course requires self-motivated, independent learners who possess well-developed academic skills and are committed to producing high quality, AP-level work.

❖ **US History I – Available to Sophomores** This course is designed for highly motivated sophomore students with exceptional ability. It will survey the major events and movements that shaped American society from colonization through the end of Reconstruction in 1877. Students must be able to comprehend advanced material, to do independent research, to express themselves through both oral and written presentations, and to engage in intensive study of the subject. A major goal of the course is to prepare students for the Advanced Placement examination. Students are strongly encouraged to take the Advanced Placement examination in their junior year as a natural progression of this course of studies.

❖ **US History II – Available to Juniors** This course is designed for highly motivated junior students with exceptional ability. It will survey the major events and movements that shaped American society from Reconstruction to the present. Students must be able to comprehend advanced material, to do independent research, to express themselves through both oral and written presentations, and to engage in intensive study of the subject. A major goal of the course is to prepare students for the Advanced Placement examination. Students are strongly encouraged to take the Advanced Placement examination as a natural progression of this course of studies.

❖ **European History – Available to Seniors** This is a full year course which is designed to provide students with the analytical skills and factual knowledge necessary to deal critically with the problems and materials in European History. The program, which covers the period from the high Renaissance (1450) to the present, prepares students for intermediate and advanced college courses by making demands on them equivalent to those of full-year introductory college courses. Significant emphasis is given to questions in intellectual, cultural, and social-economic history, as well as to those in the more traditional political-diplomatic sphere.

❖ **Studio Art: Drawing, 2D Design, or 3D Design – Available to Seniors** The AP Studio Art portfolios are designed for students who are seriously interested in the practical experience of art. AP Studio Art is not based on a written exam; instead, students submit portfolios for evaluation at the end of the school year. There are three sections to the AP Portfolio: Quality, Breadth, and Concentration. The portfolio requires the student to show a fundamental competence and range of understanding of visual concerns (and methods). The Concentration section requires the student to demonstrate a depth of investigation and process of discovery (12 pieces are required). In the Breadth section (12 pieces are required), the student is asked to demonstrate a serious grounding in visual principles and material techniques. The Quality section (5 pieces are required) permits the student to select the works that best exhibit a synthesis of form, technique and content. The class is designed to replicate a semester of an intensive college level studio course. The course requires students to be highly motivated, self-disciplined, and a dedication to craftsmanship.