

Junior / Senior Course Offerings 2019/20 School year

English

Juniors: English 11 AP English Language (required: A or B grade in previous English course)

Seniors: English 12 ERWC (Expository Reading Writing Course) AP English Lit (required: A or B grade in previous English course)

Social Science

Juniors: U.S. History AP U.S. History (required: A or B grade in previous history course)

Seniors: Government/Economics AP Government / AP Economics (required: A or B grade in previous history course)

Science

Anatomy and Physiology (required: completion of Biology and Chemistry with grade of 'C' or higher) A study of anatomical structures and physiological processes of human organ systems.

Biology (10-12 grade)

AP Biology (required: grade of B or higher in both semesters of Biology, Chemistry and Algebra) An introductory college level biology course. Taking the AP Biology Exam given in the spring is mandatory.

Chemistry (required: grade of 'C' or higher in Algebra 1, concurrent enrollment in Geometry or completion of Geometry with a grade of 'C' or higher) Chemistry is designed to give students a basic understanding of theory, composition and behavior of matter.

Honors Chemistry (required: Completion of Algebra, grade of "B" or higher in previous math and science class, concurrent enrollment in Geometry or higher math) this is an accelerated college prep course which will cover extensive chemical theories from Stoichiometry to Electrochemistry. Emphasis will be on critical thinking, problem solving, experiments, demonstration, and discussion.

AP Chemistry (required: Grade of "A" in Algebra, concurrent enrollment in Geometry or higher math, and completion of Chemistry with a grade of "B" or higher) This course emphasizes the topics covered in an introductory college level chemistry course. It will include chemical theory and applications and will develop students' skill in critical thinking, problem solving, discussions, and experimentation. The AP Exam given in the spring is mandatory.

Earth and Space Science This course is a research based lab science course emphasizing an understanding of Earth's place in the universe and dynamic Earth processes. This includes the study and investigation of the energy in Earth's systems and biogeochemical cycles; structure and composition of the atmosphere, ocean currents, weather systems, and meteorology; natural resources, natural hazards, geology, and plate tectonics; and the formation of the universe, elemental composition and life cycle of stars, and astronomy.

Micro-Marine Biology (required: grade of C or higher in Biology or Chemistry) this course provides an introduction to microbiological and marine organisms. Students will learn the major structure and function of the organisms and how they affect our world.

Physics (required: grade of 'C' or higher in Geometry) Study of central concepts of physics including mechanics, thermodynamics, waves, sound, light, electricity and magnetism.

AP Physics 1 (required: grade of 'B' or better in Geometry OR a 'B' or better in regular Physics. PLUS concurrent enrollment in Algebra 2 or higher math) this is a college level course that provides a systematic introduction to the main principles of physics- in particular, mechanics and electric circuits. Taking the AP Physics Exam given in the spring is mandatory.

AP Physics 2 (required: grade of "C" or better in AP Physics 1 OR a "B" or better in regular Physics with instructor consent PLUS concurrent enrollment in Pre Calculus or higher math) this is a college level course that provides a systematic introduction to the main principles of physics. It covers electricity and magnetism, atomic and nuclear physics, optics, heat and fluid mechanics. Taking the AP Physics Exam given in the spring is mandatory.

AP Physics C (required: Grade of "B" or better in AP Physics2 PLUS instructor consent.) This is a college level physics course, at a more advanced level than AP Physics 1. It covers mechanics, and electricity and magnetism. Taking the AP Physics Exam given in the spring is mandatory.

Math

Algebra I

Geometry (must have completed Algebra 1 with a grade of C or higher)

Algebra 2 (must have completed Geometry with a grade of C or higher)

College Prep Math (must have completed Algebra 2 with a grade of C or higher) Topics include problem solving, logic, number theory, Algebra 1 and 2 concepts, Geometry, Trigonometry, probability, and statistics. This course will help students prepare to take college entrance / placement exams.

AP Statistics (recommended: completion of Algebra 2 with a grade of B or higher) this is a college level class designed to introduce students to the major concepts and tools for collection, analyzing, and drawing conclusions from data. Topics include exploratory data analysis and descriptive statistics, designing experiments, and confirming models thorough statistical inference. Taking the AP Exam in the spring is mandatory.

Pre-Calculus (recommended: completion Algebra 2 with a grade of C or higher) Pre-Calculus is designed to introduce students to the language and concepts necessary for college level math courses. A TI graphing calculator is highly required.

AP Calculus AB (required: a grade of 'B' or higher in Pre-Calculus both semester or teacher rec.)

This advanced placement course is the equivalent to college level Introductory Calculus. Students study function and derivative of polynomial, trigonometric, logarithmic, hyperbolic and exponential functions. A TI graphing calculator is required. Taking the AP Exam in the spring is mandatory.

AP Calculus BC (required: successful completion of AP Calculus AB)

World Languages

American Sign Language 1

American Sign Language 2 (required: grade of C or higher in ASL 1)

American Sign Language 3 (required: grade of C or higher in ASL 2)

French 1 French 2 (required: grade of C or higher in French 1) French 3 (required: earned grade of C or higher in French 2)

AP French Language (recommended: grade of 'B' or higher in French 3) The AP Exam given in the spring is mandatory.

Spanish 1 Spanish 2 (required: grade of C or higher in Spanish 1) Spanish 3 (required: grade of C or higher in Spanish 2)

AP Spanish (required: grade of 'B' or higher in Spanish 3 or Spanish for Speakers 2) Focus on academic reading and writing of the language. The AP Exam given in the spring is required.

Spanish for Spanish Speakers 1 (oral skills required – students will be taught to read and write)

Spanish for Spanish Speakers 2 (required: earned grade of C or higher in Spanish for Spanish Speakers 1)

Fine Arts

Art Structure 1 Students will participate in the creation of realistic and representational art through the use of pencil, charcoal and colored pencils. Art survey of artists and their works will be explored.

Advanced Art Structure (required: successful completion of Art 1 or teacher approval)

AP Studio Art (required: successful completion of Advanced Art or teacher approval) The AP Exam given in the spring is mandatory.

Dance 1 This course uses movement activities through traditional and modern dance. Course may be used for PE or Fine Art credits.

Dance 2 (required: teacher approval) Dance Team Preparation / Production (required: auditions and teacher approval)

Digital Media Students will learn to create and edit videos. Students will learn camera use, audio, visual and lighting techniques as well as gain knowledge of Adobe Premiere and After Effects. (Currently not a UC approved Fine Art, however counts as UC approved academic elective)

Advanced Digital Media: (required: successful completion of Digital Media 1)

Drama 1 Students will learn about the world of the theatre, from back stage to starring role.

Drama 2 (required: successful completion of Drama or teacher recommendation)

Play Production (required: successful completion of Drama) An advanced theatre course designed for accomplished and dedicated theatre students. Many hours of work outside of class required.

Instrumental Music: Placement will be determined by Director of Instrumental Music. Audition required.

AP Music Theory: This course covers aspects of melody, harmony, rhythm, musical analysis, history, and style. Listening skills, sight singing and keyboard harmony are part of the course. Students registering for the course should have basic performance skills in voice or on an instrument. The AP Exam given in the spring is mandatory.

Musical Theater An exploration of musical theater through study, singing and dancing. This is a performance based course.

Photo 1 Students will learn to operate a camera and shoot, develop, enlarge and finish their own work. Requirements: use of a 35 mm camera

Advanced Photo (required: successful completion of Photo 1)

Sculpture: Students will create 3 dimensional art projects with the use of a variety of materials and techniques.

Stagecraft Technology Students will learn the behind the scene skills necessary to be part of a stage crew. The course will cover stage management, set design and construction, and lighting. Additional after school hours required.

Video Production This course is designed to prepare students for filming a documentary. Training will include camera use, lighting techniques, and audio.

Advanced Video Production (required: grade of A or B in Video Production and/or teacher recommendation)

Vocal Music: Placement will be determined by Choir Director. Audition required.

Practical Arts

Aircraft Maintenance / Small Engines Students will learn the basic components and systems of two and four stroke engines through practical hands-on work with lawnmower and aircraft engines. Shop safety and tool identification will be stressed.

Broadcast Journalism / Advanced Broadcast Journalism (required: teacher approval) Students will produce and direct the daily 'Good Morning JBHS' program. Instructional techniques include camera use, audio, visual, and lighting techniques.

Cabinet Technology 1 - Students will be introduced to basic woodworking. Instruction in safety, care and use of hand tools, intro to power machines and completion of a variety of wood projects.

Advanced Cabinet Tech: required: grade of C or higher in Cabinet Tech 1

Culinary Arts Science 1 Students will develop skills in basic food use and preparation with an emphasis on application of nutritional knowledge.

Culinary Arts 2 Advanced Culinary Arts course. Required: successful completion of Culinary Arts 1.

Digital Applications (Game Design) Students gain exposure and experience using personal computers, scanners, digital cameras and print software to complete a variety of projects in the field of business, digital photography, video and audio editing, video game design, desktop publishing and web design.

Advanced Digital Applications (required: successful completion of Digital Applications)

Digital Media Students will learn to create and edit videos. Students will learn camera use, audio, visual and lighting techniques as well as gain knowledge of Adobe Premiere and After Effects.

Advanced Digital Media (required: successful completion of Digital Media)

Digital Animation Students will work on drawing tablets while using software such as the Adobe Suite and ToonBoom. The class will cover the 12 principles of animation: Squash and Stretch, Anticipation, Staging, Straight Ahead Action and Pose to Pose, Follow Through and Overlapping Action, Slow in and Slow Out, Arc, Secondary Action, Timing, Exaggeration, Solid Drawing, and Appeal. Students will create various shorts and end each semester have one fully actualized animation short.

Journalism (English teacher recommendation) Students will analyze electronic and print media and then learn to write while acquiring the skills necessary to produce the school newspaper.

Adv. Journalism (required: successful completion of Journalism)

Photo 1 Students will learn to operate a camera and shoot, develop, enlarge and finish their own work. Requirements: use of a 35 mm camera

Advanced Photo (required: successful completion of Photo 1.)

CTE (Career Tech Ed classes) (must be at least 16 years old) A variety of occupational classes are offered after school. Some of the possible courses for fall are: animal care, catering, construction technology, film and video, law enforcement, financial occupations, and Photoshop. Sign up for these courses with Ms. DiNapoli during registration this summer, the week before school, or the first week of school. They fill up fast so sign up early!

Stagecraft Technology Students will learn the behind the scene skills necessary to be part of a stage crew. The course will cover stage management, set design and construction, and lighting. Additional after school hours required.

Video Production This course is designed to prepare students for filming a documentary. Training will include camera use, lighting techniques, and audio.

Advanced Video Production (required: grade of A or B in Video Production and/or teacher recommendation)

Yearbook (required: advisor's approval) This class is responsible for designing and producing the annual yearbook. Ability to meet deadlines is a must.

Academic Electives

Sociology This one semester course will cover socialization from birth until death and emphasize the concepts of social change. Students will be required to do both academic and field research and to actively participate in class discussions.

Psychology This one semester course offers a basic introduction to the study of human behavior. The course will provide students with information from available scientific knowledge in psychology again which they may measure their own beliefs and assumptions regarding the nature of human behavior.

AP Psychology: This course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about ethics and methods psychologists use in their science and practice. Taking the AP Exam in the spring is mandatory.

Intro to Computer Programming (Prerequisites: Concurrent enrollment in Geometry or higher) Hands-on class that explores computer science concepts of computer terminology and architecture, software, the Internet and web design, and Java programming. The major focus of the course involves an extensive academic study of computer science concepts using the Java programming language. Topics included are console input and output, programming calculations and operator precedence, predefined Java Math methods, control statements (if-else, for, while) and object-oriented programming.

Sports Medicine (Prerequisites: successful completion of Biology and Algebra) Sports Medicine studies human anatomy and physiology by examining how systems of the body interact through physical activity and inactivity. The prevention, evaluation, treatment, and rehabilitation of illness, disease, and injury are explored. Scientific principles and practical applications are taught through an activity/performance

Introduction to Engineering Students will work hands on designing and manufacturing VEX Robots while learning basic theory and application of electronics, programing, and pneumatic systems. A variety of measuring tools and instruments will also utilized for labs and experiments

Non Departmental Elective

ASB (must run for office) This class is for elected student body officers, class officers and commissioners.

Health/Careers – for students who have not completed the yearlong Health/Careers requirement for graduation

Physical Education

Aerobics Fitness program that gives students a chance to dance/step to music.

Dance This course uses movement activities through traditional and modern dance. (Course may be used for PE or Fine Art credits) Open to all grade levels.

Dance 2 (required: teacher approval)

Dance Team (required: audition and teacher approval)

Marching Band – offered fall semester with auditions for Drum Line offered in the spring. Co enrollment in Band course.

PE 11-12: Students will learn basic skills, rules and strategies needed to participate in team sports and physical fitness disciplines. All students are required to pass the fitness test.

Pep Squad (tryouts required) cheerleading squad. P.E. credit earned.

Weight Training This class meets the needs of students in the following areas: total body strength specific large muscle group development, flexibility enhancement, cardio-vascular fitness and strength conditioning through weight training activities.

ATHLETIC TEAM SPORTS

Students must tryout and make the team or squad in order to be placed in the class. Students who do not make the team or squad will be placed in a general Physical Education class. Students may be placed in a 7:00 AM conditioning class when the season ends or if cut from team.

Cross Country
Boys Basketball Conditioning
Football

Boys Golf Conditioning
Boys Soccer Conditioning
Boys Volleyball Conditioning
Boys Water Polo

Girls Basketball Conditioning
Girls Golf
Girls Soccer Conditioning

Girls Tennis
Girls Volleyball
Girls Water Polo Conditioning

*Spring sports: Softball, Baseball, Swim, and Boys Tennis: If you are interested in playing a spring sport, sign up for zero period athletic conditioning for the fall.