



WESTON HIGH SCHOOL

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To: Dr. Kimo Carter
From: Anthony Parker
Re: Program of Studies Course Proposals 2020-2021
Date: December 5, 2019

The high school is pleased to recommend the following courses be included in the Program of Studies for 2020-2021. None of these courses will increase FTE's while still enriching our curriculum and serving an array of learners. The proposed courses are in the English Language Education, Science and Wellness Education Departments.

Department: English Language Education (ELE)

Accountability data indicates that it is essential to increase the services that we offer English learners in Weston and make English language development a priority. According to the Department of Elementary and Secondary Education, the academic progress of an English learner requires systematic, sustained and explicit instruction provided by certified ELE teachers. Beginning English learners require more robust exposure to the language as well as increased practice opportunities in order to more efficiently develop their English skills and make adequate progress towards achieving fluency in the four areas of listening, speaking, reading, and writing.

Including Academic English for Emergent Bilinguals in the program of studies will help legitimize the course and, in turn, highlight English language development as a priority for English learners. In addition, changing the course name and designating the course as a graded course will address the opt-out issue, which has recently become more prevalent as students focus on their college transcripts and GPA.

Academic English for Emergent Bilinguals I

10 Credits

Academic English for Emergent Bilinguals I is a double block class that fulfills both English Language Arts and Foreign Language requirements. It also qualifies students for the Seal of Biliteracy. This course is designed for students with WIDA proficiency levels 1-3. Students will develop their academic language, communicative competence, and their ability to access grade-level curriculum. Research-based techniques shown to increase students' proficiency are utilized to teach content, vocabulary, grammatical structures, and syntax. Students are provided with challenging and diverse reading material to strengthen their oral comprehension, analytical skills, vocabulary development, and writing skills. Students may be enrolled in this course for consecutive years. New, robust curriculum is designed and implemented each year.

Academic English for Emergent Bilinguals II

5 Credits

Academic English for Emergent Bilinguals II is a single-block class. Families can elect for this class to satisfy either English Language Arts or the foreign language requirement. Academic English for Emergent Bilinguals II is designed for more proficient English learners to continue developing their speaking, listening, reading, and writing skills in conjunction with both state frameworks and WIDA language development standards. This course is designed for students with WIDA proficiency levels 4-6 and qualifies students for the Seal of Biliteracy. Students will spend significant time on the writing process, including pre-writing work, preparing outlines, creating strong analytical thesis statements, and writing cohesive essays. Students may be enrolled in this course for consecutive years. New curriculum is designed and implemented each year.

Department: Science**College Prep Engineering****5 Credits**

This year-long course is designed to be an iterative project-based exploration of the engineering design process. Topics of study will include, but are not limited to: civil engineering, electrical engineering and mechanical engineering. In this course, students are introduced to the impact of technology on their everyday lives and learn concepts of engineering design, tools, materials and machines, communication, construction, manufacturing, and transportation technologies. Components of the curriculum include, but are not limited to: lasers, renewable energies, electronics, sensing, casting, mechanics and computer aided design software. Students are expected to be able to work both independently and in collaborative groups. This course fulfills a lab science requirement.

Honors Engineering**5 Credits**

In this course, students will be presented with a specific challenge that requires an engineered solution. For example: Design and create an Unmanned Aerial Vehicle (UAV) to monitor large crop moisture levels and determine the amount of water needed to sustain growth. Students will work through the steps of the engineering design process to meet the challenge. Project/Problem Based work requires critical thinking, independent work, creativity, communication, research, and an understanding of the engineering design process. Inherent in this process is the need to re-design and to work through frustration. At the conclusion of the project, students will present their solutions to an authentic audience. Engineering thinking How to generate high quality solutions consistently Calculus for Engineers Introduction to limits, derivatives and integrals Optimization Using calculus to inform design decisions to reduce waste Machine Design Physics related calculations Mechanics of Materials Calculating stress, strain load, and failure analysis Computer Aided Design Generating 3D models that meet needs and calculations Rapid prototyping 3D printing designs Electronic Device Design Sensors, components, feedback, and coding Control theory Maintaining setpoints, eliminating error, handling disturbances Vibrations Resonance, structure failure, suspension design Fluid mechanics Flow rates, drag, lift, aerodynamics, pressure This course fulfills the lab science requirement.

Honors Forensics**5 Credits**

Forensics is designed for motivated, college bound students interested in the application of science to criminal investigations. During the year, students will develop a grounding in the biological and chemical principles used in the field and the lab to solve crimes. Topics covered may include: the crime scene, physical evidence, physical properties, organic analysis, inorganic analysis, the microscope, hairs, fibers, and paint, drugs, forensic

Department: Wellness Education**Racquets, Nets, and Clubs****2 Credits**

Classes are held outside and in the gymnasium. This is for the student who would like to learn and play sports and activities that are individually based. This class will dive deeper into the overlapping nuances of the rules, skills, and strategies of sports such as Pickleball, Tennis, Badminton, Volleyball, Spikeball, Kan Jam, Cornhole, Disc Golf, and Golf. Instructional activities will foster growth to the advanced and mastery levels of performance and strategy within each unit of instruction. Competitive games will be utilized both as culminating activities and for student assessment.

Yoga, Meditation, and Mindfulness**2 Credits**

Classes are held in the Black Box. This class is for the student who has completed lifelong activities and is interested in yoga, meditation and mindfulness. Students will learn beginner-level hatha yoga, which combines breathing techniques (Pranayama), postures (asanas), relaxation, and meditation. The main goals will be to learn and understand the benefits of these various aspects of hatha yoga and how they can be incorporated into a lifestyle promoting well-being, as well as application for stress management. Pre-requisite: Must have taken Lifelong Activities.

Leadership in Competitive Sports Teams**2 Credits**

For students that have previously taken Competitive Team Sports, this class takes place within the existing Competitive Team Sports classes. Students will be expected to foster a positive and engaged classroom climate. They will be given additional responsibilities and assessed on leadership and mentoring opportunities. Some of these responsibilities may include acting as coaches, captains, demonstrators and officials to dive deeper into the skill development, rules and strategy of sport. This class will meet primarily outdoors and in the gymnasium. Students must have taken Competitive Team Sports and receive an endorsement from the Wellness Education Department. Prerequisite: Competitive Team Sports

Aquatics and Sports-Based Fitness**2 Credits**

One quarter will be dedicated to aquatic games and fitness training and will be conducted in the pool. The other quarter will be focused on the development and practice of an activity-specific personal fitness plan and will be conducted in the weight room.