

**New Course Offerings
Mineola High School
2013-2014**

§112.33 – Astronomy (One Credit)

(a) General requirements - This course is recommended for students in Grade 11 or 12. Suggested prerequisite: one unit of high school science.

(b) Introduction - In Astronomy, students conduct laboratory and field investigations, use scientific methods, and make informed decisions using critical thinking and scientific problem solving. Students study the following topics: astronomy in civilization, patterns and objects in the sky, our place in space, the moon, reasons for the seasons, planets, the sun, stars, galaxies, cosmology, and space exploration. Students who successfully complete Astronomy will acquire knowledge within a conceptual framework, conduct observations of the sky, work collaboratively, and develop critical-thinking skills.

§112.37 - Environmental Systems (One Credit)

(a) General requirements - This course is recommended for students in Grade 11 or 12. Suggested prerequisite: one unit of high school life science and one unit of high school physical science.

(b) Introduction - In Environmental Systems, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students study a variety of topics that include: biotic and abiotic factors in habitats, ecosystems and biomes, interrelationships among resources and an environmental system, sources and flow of energy through an environmental system, relationship between carrying capacity and changes in populations and ecosystems, and changes in environments.

§110.60 - Debate (One Credit)

(a) Introduction - Controversial issues arise in aspects of personal, social public, and professional life in modern society. Debate and argumentation are widely used to make decisions and reduce conflict. Students who develop skills in argumentation and debate become interested in current issues, develop sound critical thinking, and sharpen communication skills. They acquire life-long skills for intelligently approaching controversial issues.

(Career Technology Courses)

§130.8 - Professional Standards in Agribusiness (One-Half to One Credit)

(a) **General requirements** - This course is recommended for students in Grades 9-12.

(b) **Introduction** - To be prepared for careers in agribusiness systems, students need to attain academic skills and knowledge, acquire technical knowledge and skills related to leadership development and the workplace, and develop knowledge and skills regarding agricultural career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings. This course primarily focuses on leadership, communication, employer-employee relations, and problem solving as they relate to agribusiness.

130.88 - Graphic Design and Illustration (One to Two Credits)

(a) **General requirements** - This course is recommended for students in Grades 10-12. Recommended prerequisite: Principles of Arts, Audio/Video Technology, and Communications.

(b) **Introduction** - Careers in graphic design and illustration span all aspects of the advertising and visual communications industries. Within this context, in addition to developing knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications career cluster, students will be expected to develop an understanding of the industry with a focus on fundamental elements and principles of visual art and design.

§130.226 - Culinary Arts (One to Two Credits)

(a) **General requirements** - This course is recommended for students in Grades 10-12. Recommended prerequisite: Restaurant Management, Lifetime Nutrition and Wellness, or Principles of Hospitality and Tourism.

(b) **Introduction** - Culinary Arts begins with the fundamentals and principles of the art of cooking and the science of baking and includes management and production skills and techniques. Students can pursue a national sanitation certification, a Texas culinary specialist certification, or any other appropriate industry certification. This course may be offered as a laboratory-based or internship course. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

§130.278 - Digital and Interactive Media (One-Half to One Credit)

(a) **General requirements** - This course is recommended for students in Grades 10-12. Recommended prerequisite: Principles of Information Technology.

(b) **Introduction** - Through the study of digital and interactive media and its application in information technology, students will analyze and assess current and emerging technologies, while designing and creating multimedia projects that address customer needs and resolve a problem. Students implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. The knowledge and skills acquired and practiced will enable students to successfully perform and interact in a technology- driven society. Students enhance reading, writing, computing, communication, and critical thinking and apply them to the information technology environment.

§130.295 - Forensic Science (One Credit)

(a) **General requirements** - The course is recommended for students in Grades 11-12. Prerequisites: Biology and Chemistry. Recommended prerequisites: Principles of Law, Public Safety, Corrections, and Security and Law Enforcement I. To receive credit in science, students must meet the 40% laboratory and fieldwork requirement identified in §74.3(b)(2)(C) of this title (relating to Description of a Required Secondary Curriculum).

(b) **Introduction** - Forensic Science is a course that uses a structured and scientific approach to the investigation of crimes, assault, abuse and neglect, domestic violence, accidental death, homicide, and the psychology of criminal behavior. Students will learn terminology and investigative procedures related to crime scene, questioning, interviewing, criminal behavior characteristics, truth detection, and scientific procedures used to solve crimes. Using scientific methods, students will collect and analyze evidence through case studies and simulated crime scenes such as fingerprint analysis, ballistics, and blood spatter analysis. Students will learn the history, legal aspects, and career options for forensic science.

§130.373 - Engineering Design and Problem Solving (One Science Credit)

(a) **General requirements** - This course is recommended for students in Grades 11-12. Prerequisites: Geometry, Algebra II, Chemistry, and Physics.

(b) **Introduction** -

- (1) Engineering design is the creative process of solving problems by identifying needs and then devising solutions. This solution may be a product, technique, structure, process, or many other things, depending on the problem. Science aims to understand the natural

world, while engineering seeks to shape this world to meet human needs and wants. Engineering design takes into consideration limiting factors or "design under constraint." Various engineering disciplines address a broad spectrum of design problems using specific concepts from the sciences and mathematics to derive a solution. The design process and problem solving are inherent to all engineering disciplines.

- (2) Engineering Design and Problem Solving reinforces and integrates skills learned in previous mathematics and science courses. This course emphasizes solving problems, moving from well defined toward more open ended, with real-world application. Students apply critical-thinking skills to justify a solution from multiple design options. Additionally, the course promotes interest in and understanding of career opportunities in engineering.

§130.362 - Concepts of Engineering and Technology (One-Half to One Credit)

(a) **General requirements** - This course is recommended for students in Grades 9-10.

(b) **Introduction** - Concepts of Engineering and Technology provides an overview of the various fields of science, technology, engineering, and mathematics and their interrelationships. Students will use a variety of computer hardware and software applications to complete assignments and projects. Upon completing this course, students will have an understanding of the various fields and will be able to make informed decisions regarding a coherent sequence of subsequent courses. Further, students will have worked on a design team to develop a product or system. Students will use multiple software applications to prepare and present course assignments.