Principles of Engineering

Credits: 1.0 Technology Education

Principles of Engineering serves as a foundations course within the PLTW sequence. Students are exposed to some of the major concepts they will encounter in a post-secondary engineering course of study. Students have an opportunity to investigate engineering and high-tech careers and to develop skills and understanding of course concepts. Students employ engineering and scientific concepts in the solution of engineering design problems. They develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges. Students also learn how to document their work and communicate their solutions to peers and members of the professional community. Transcripted college credit is available to students who receive a grade of 85% in the course and pass an assessment administered by the national affiliate for PLTW, Rochester Institute of Technology (RIT). PLTW students may also meet their technology education credit through this course or use as one of the courses in the CTE sequence—It may not be used for both. In order to receive Technology Education credit for Principles of Engineering, students must be enrolled in the PLTW Pre-Engineering program and also have taken and passed both Introduction to Engineering and Design and Digital Electronics.

Advanced Critical Reading/Critical Analysis

Credits: 1.0 Elective

This course offers students an opportunity to engage in high-level reading and writing activities that develop critical analysis skills through instruction and practice. Course content includes selected readings of various genre and response to reading in writing and discussion. Instructional activities are designed to enhance academic performance in all areas and extensive vocabulary study to prepare for PSAT/SAT assessments. (May be blocked with English course)

Foods and Nutrition 1

Credits: .50 Elective

This semester course is designed to strengthen the understanding and importance of nutrition as it relates to wellness. The focus of this course is to assist students in making healthy food choices based on the dietary guidelines, food guide pyramid, and nutrient groups. Knowledge and understanding of these elements enable students to select, plan, prepare and serve nutritious meals. Safety and sanitation of food are emphasized. Students practice effective management skills and apply consumer decision-making skills in all aspects of meal planning and food preparation. Weight control and exercise are examined as factors promoting wellness. Students develop a portfolio and explore career paths that lead to employment in the field of nutrition. Field experiences in this course include interviewing and job shadowing professionals. This course is a prerequisite for the Food and Beverage Management (ProStart) state approved completer program. Students who entered high school before Foundations of Technology (FOT) became available at that school may take this course for Technology Education credit through

school year 2012-2013. All students who entered high school after FOT became available at that school must take FOT, preferably in their freshman year. After SY 2013, all students must take FOT or a designated course (to be determined) to earn Technology Education credit.

Basic Drawing and Painting
Credits: .50 Fine Art

This semester course is intended for students with little art background who would like to have some experiences with drawing, sketching, and painting. Master works of two-dimensional artists will be studied. All students will be expected to maintain a journal/sketchbook.

Research and Writing the Term Paper
Credits: .50 Elective

This semester course is designed for those students who wish to gain skills in writing longer papers based on the findings of others. Tools and methods of objective research will be explored. Students will learn the logical development and substantiation of a thesis. They will also have the opportunity to discuss problems of selecting, evaluating, and interpreting facts.