# **Engineering**



	9,	10, 11,	12,
Engineering	PLTW Introduction to Engineering Design	PLTW - Civil Engineering and Architecture  PLTW - Computer Integrated Manufacturing  PLTW - Digital Electronics (DC)	PLTW - Principles of Engineering AP Physics C
	High School District 214 Graduation Requirements		
English	English   English   English Course Descriptions Section - Page 223		4.0 credit units
Mathematics	Mathematics   Mathematics   Mathematics   Mathematics (Recommended) Including one unit of Algebra I and one unit of Geometry. Course Descriptions Section - Page 251		3.0 credit units
Social Science	Social Science   Social Science   Social Science (Recommended)  Must include one year of U.S. History or combination of U.S. History and American Government and one semester civics.  Course Descriptions Section - Page 269		2.0 credit units
Science	Science   Science   Science (Recommended) Course Descriptions Section - Page 261		2.0 credit units
Career & Technical Education	Career and Technical Education Course Descriptions Section - Page 275		1.0 credit unit
Fine Arts	Fine Arts Course Descriptions Section - Page 239		0.5 credit unit
Consumer Education	Consumer Education Students meet the consumer education graduation requirement by passing one of the following courses or combination of courses: Personal Finance (06210) - Page 288, Economics (07830) - Page 273, Consumer Education (59940) - Page 274.		0.25 credit unit
Physical Education	Physical Education   Health   Physical Education   Physical Education  A minimum of 3-5 days of daily physical education is a required course for all students in each of four years of high school. The State also requires that students during high school take a minimum of 18 weeks (one semester) of health education.*  Course Descriptions Section - Page 309  Refer to page 327 in Academic Policies and Procedures section regarding substitutions for physical education.		*

### **Post Secondary**

#### Career Related Electives

 $\ \, \hbox{College Advanced Machine Technology (DC)} \\$ 

AP Biology

AP Chemistry

AP Environmental Science

**AP Statistics** 

Computer Programming, Mobile App and Networking

AP Computer Science Principles

Fabrication Technology 1 + 2

Robotics

PLTW - Engineering Design and Development

**AP Economics** 

#### Career Related Activities for the Engineering pathway

Athletics

Computer Club

**District Career Days** 

**District Career Nights** 

**District Career Treks** 

High Mileage Vehicle Club

Math Team

Robot Rumble

Science Olympiad

Wildstang FIRST Robotics

## Four-Year University Admission Requirements

English (4 years)

Mathematics (4 years)

Social Science (3-4 years)

Science (2-3 years)

World Language (2-3 years)

Fine Arts (1-2 years)

See your counselor regarding admission requirements for highly selective institutions.

### Project Lead the Way



Project Lead the Way is a sequential engineering program that allows students to earn 10+ college credits transferable to many four-year colleges and universities as well as numerous two-year institutions.

PLTW, an eight-semester sequence of courses over four years, covers the foundations of engineering with hands-on practical applications of real engineering concepts. Its mission is to promote the long-term success of a growing and more diverse group of students studying engineering and engineering technology—fields that are experiencing critical shortages.

The program, when combined with traditional high school mathematics and science courses, introduces students to the scope, rigor and discipline of engineering prior to entering a postsecondary institution. Students can take one or all of the program's courses during their highschool careers.

Honors, Advance Placement and Dual Credit courses are offered throughout the curriculum. Please consult with your high school counselor for the latest information regarding course offerings, scheduling and registration for all career pathways and courses.

\*This represents the number of units of credit required at full implementation for the graduating class of 2012 and beyond (12 units, assuming a unit is equivalent to a year-long course). Additionally, physical education, while not a state graduation requirement is a required course for all students a minimum of 3-5 days a week in each of four years of high school (See ILCS 110,5/27-6 and 23 III.Adm. Code Section 1.425).