



Sample Schedules

(Specific Davenport courses for core areas will be identified)

PLTW is open to students in grades 9-12. It is a 5-course sequence taught in conjunction with college preparatory math and science courses. The sample schedule below gives an idea of how students can take the ***PLTW courses** over a 4-year period.

** Year of Implementation

Typical Student's Year 1

Language Arts
Math
Science
Social Studies

***Introduction to Engineering Design**

****2006-2007**

Required 1 term: P.E./Health & Comp Apps

Electives: World Languages (Recommended)

Typical Student's Year 2

Language Arts
Math
Science
Social Studies

***Principles of Engineering ** 2006-2007**

Required 1 term: P.E.

Electives: World Languages (Recommended)

Typical Student's Year 3

Language Arts
Math
Science
Social Studies

***Civil Eng & Architecture **2007-2008**

***Computer Integrated Manufacturing**

****2008-2009**

Required 1 term: P.E.

World Languages (Recommended)

Typical Student's Year 4

Language Arts
Elective: Math
Elective: Science

***Engineering Design and Development**

****2009-2010**

Electives & 1 term Required P.E.

The full PLTW program could be completed in as little as 2 1/2 years. Students unable to complete the entire PLTW 5-course sequence still benefit from exposure to this program because of the skills they acquire in problem-solving, communication, teamwork, math, science, and technology.

Examples of Engineering Career Opportunities

The following is a partial list of engineers:

- Automotive
- Aerospace
- Agricultural
- Architectural
- Bio-chemical
- Bio-medical,
- Bio-mechanical
- Chemical
- Civil
- Computer
- Electrical
- Environmental
- Geological
- Geothermal
- Industrial
- Laser
- Manufacturing
- Materials Processing
- Mechanical
- Mineral and Mining
- Nuclear
- Optical
- Petroleum
- Pharmaceutical
- Plant
- Quality control
- Welding

Women who may have once been discouraged from pursuing technical careers are now not only encouraged to do so, but are also in high demand.



Web Site: www.pltw.org

Contact your child's counselor at:

At Central - (563) 323-9900

At North - (563) 388-9880

At West - (563) 386-5500



Davenport Community Schools



*Project
Lead The
Way
(PLTW)*

**An Exciting New Engineering/
Engineering-Technology/
Technology Career Pathway**



Why Consider PLTW?

With more than half of the country's engineers and scientists nearing retirement and with more than half of the students in college engineering programs dropping out before graduation, there are currently 1,300,000 high skill/high wage engineering and engineering-technology jobs available in the U.S without trained people to fill them. PLTW programs prepare students for 2 or 4-year college degrees in engineering/technology-related careers. Utilizing technology equipment and industry-standard software, students produce real world projects in a laboratory setting. Studies of PLTW curriculum have shown that PLTW students become the kind of prepared, confident, technology-proficient employees that U.S. businesses need to stay competitive in today's global economy.

Project Lead The Way Courses

Introduction to Engineering Design (Beginning Fall 2006)

'Introduction to Engineering Design' is an introductory course in which students develop critical thinking. Using problem-solving and decision-making skills, they analyze and solve problems utilizing powerful hardware and software technologies to make 3-D models or solid renderings of objects. With the use of a computer-aided design system, students learn the product design process by creating, analyzing, rendering, and producing models.



Principles of Engineering (Beginning Winter 2006)

'Principles of Engineering' is a course in which students explore technology systems and engineering processes to find out how math, science, and technology solve problems and help people. Through project-based, hands-on experiences, students develop the kinds of higher-level thinking skills essential at a college level and in a work environment. Students also learn how engineers look at concerns about social and political consequences of technological change.

Civil Engineering & Architecture (Beginning Fall 2007)

This course provides an overview of the fields of civil engineering and architecture, while emphasizing the interrelationship and dependence of both fields on each other. Students use state-of-the art Autodesk Design software to solve real-world problems and communicate solutions to hands-on projects and activities. This course covers topics such as: the roles of engineers & architects; project planning; site planning; building design; and project documentation & presentation.

Computer Integrated Manufacturing (Beginning Fall 2008)

'Computer Integrated Manufacturing' is a course that teaches the principles of robotics and automation. Students are introduced to the fundamentals of robotics and how to use robotics in a manufacturing environment. They study numerous designs and use a variety of techniques and modifications to build their own prototype/model.



Engineering Design & Development (Beginning Fall 2009)

'Engineering Design and Development' is a course in which students work in groups to research, design, and construct a solution to an open-ended engineering problem. They apply all the principles learned in the previous PLTW courses and work closely with a mentor from an engineering/technology field. (Some PLTW students have even gotten patents for their inventions!)