

**Illinois State Board of Education Course Listing Codes related to
PLTW Gateway To Technology Middle School Units
2013-14**

**Subject Area: 71 - Engineering and Technology (prior-to-secondary)
Subject Area: 64—Health Care Sciences (prior-to-secondary)**

64001A001 Medical Detectives (PLTW GTT) CTE Course

Students explore the biomedical sciences through hands-on projects and labs that require the students to solve a variety of medical mysteries. Students investigate medical careers, vital signs, diagnosis and treatment of diseases, as well as human body systems such as the nervous system. Genetic testing for hereditary diseases and DNA crime scene analysis put the students in the place of real life medical detectives.
Starting School Year: 2013
Ending School Year:

71004A003 Green Architecture (PLTW GTT) CTE Course

In a world of increasing costs, from construction materials to energy use, it is important to expose the next generation of builders to the concept of “being green.” In the wake of a hurricane, tsunami, or forest fire, many affordable homes are needed quickly; students will learn how to provide necessary housing and repurpose otherwise unused building materials.
Starting School Year: 2012
Ending School Year:

71001A001 Science of Technology (PLTW GTT) CTE Course

Students trace how science has affected technology throughout history and learn about applied physics, chemical engineering and nanotechnology through exploratory activities and projects.
Starting School Year: 2012
Ending School Year:

71002A001 Automation and Robotics (PLTW GTT) CTE Course

Students trace the history, development, and influence of automation and robotics. They learn about mechanical systems, energy transfer, machine automation and computer control systems. Students acquire knowledge and skills in problem solving, teamwork collaboration and innovation.
Starting School Year: 2012
Ending School Year:

71002A002 Flight and Space (PLTW GTT) CTE Course

Students study the history of aerospace through hands-on activities, research and a presentation in the form of an infomercial. Students explore the science behind aeronautics and use their knowledge to design, build and test a model glider. Simulation software is used to expose students to traveling and living in space.
Starting School Year: 2012
Ending School Year:

71002A003 Magic of Electrons (PLTW GTT) CTE Course

Through hands-on projects, students explore the science of electricity, the behavior and parts of atoms, circuit design and sensing devices. Students acquire knowledge and skills in basic circuitry design and explore the impact of electricity on their lives.
Starting School Year: 2012
Ending School Year:

71004A001 Energy and the Environment (PLTW GTT) CTE Course

Students investigate the importance of energy in our lives and the impact energy use has on the environment. They design and model alternative energy sources and participate in an energy expo to demonstrate energy concepts and innovative ideas. Students evaluate ways to reduce energy consumption through energy efficiency and waste management techniques.
Starting School Year: 2012
Ending School Year:
Maximum Credit: 0.00

71006A001 Design and Modeling (PLTW GTT) CTE Course

This unit uses solid modeling software (a sophisticated mathematical technique for representing solid objects) as part of the design process. Utilizing this design approach, students understand how design influences their lives. Students also learn sketching techniques and use descriptive geometry as a component of design, measurement and computer modeling. Students brainstorm, research, develop ideas, create models, test and evaluate design ideas and communicate solutions.
Starting School Year: 2012
Ending School Year: