#### **Sample Student Schedule**

REQUIRED CLASS				
Credits	6	6	6	6
Subject	9th	10th	11th	12th
ENGLISH	English I Hon English I	English II Hon English II	English III Hon English III	English IV AP English
MATH	Algebra I Hon Alg I Algebra II Hon Alg II	Algebra II Hon Alg II Geometry Hon Geometry	Geometry Hon Geometry Pre-Calculus	Calculus
	Int Science I	Int Science II	Biology	Science Elective
SCIENCE	Hon Int Science	Physics or Chemistry	Biology	Licetive
SOCIAL STUDIES	Introduction to Social Studies	World Civ or AP World Civ	U.S. History or AP US History	
OTHERS	PE (1/2) Health (1/2)		Art I	Two courses of choice
Engineering and Technology Education	Introduction to Engineering Design	Principles of Engineering	Digital Electronics	Engineering Design and Development
* FOREIGN LANGAUGE		Foreign Language (Two Consecutive Years)		
* Pre-College Curriculum Only				

Students enrolled in the Project Lead the Way Program should consider taking as much science and math as possible along with their Engineering/Technology courses.

#### **Technology Student Association**

The Technology Student Association (TSA) fosters personal growth, leadership, and opportunities in technology, innovation,



design and engineering. Students apply and integrate science, technology, engineering and mathematical concepts through co-curricular activities, competitive events and related programs.

For more information about TSA go to: www.tsaweb.org.

### TSA High School Competitive Events

Agriculture and Biotechnology Design

Animatronics

Architectural Model

**Career Comparisons** 

Chapter Team (Written and Oral)

CAD 2D, Architecture

CAD 3D, Engineering

CAD Animation, Architecture

CAD Animation, Engineering

Construction Systems

Cyberspace Pursuit

Desktop Publishing

Dragster Design

Electronic Research / Experimentation

**Engineering Design** 

Extemporaneous Presentation

Film

Flight Endurance

Imaging Technology

Manufacturing Prototype

Medical Technology

**Prepared Presentation** 

**Promotional Graphics** 

Radio Controlled Transportation

SciViz

Structural Engineering

System Control Technology

Technical Research and Report Writing

**Technical Sketching and Application** 

Technology Bowl (Written and Oral)

Technology Challenge

Technology Problem Solving

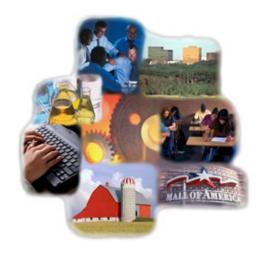
**Transportation Modeling** 

Video Game Design

## Madison Southern High School



# Engineering and Technology Department



## Engineering / Technology Education

Madison Southern High School's Engineering and Technology Department is pleased to announce its participation in the Project Lead the Way (PLTW) Pre-Engineering Program.



world?

This program provides students with real-world

learning and hands-on experiences that integrate Science, Technology, Engineering, and Mathematics (STEM).

Students enrolled in the PLTW program will gain an understanding of the real world and develop skills in:

- Problem Solving
- Team work
- Leadership
- Public Speaking
- Conducting research
- Analyzing data

Project Lead The Way prepares students for college/university engineering, architecture and biomedical science fields and/or direct entry into the workforce following high school graduation.
Students in grades 8-12 interested in these fields of study should enroll in the Engineering / Technology Education courses.

For more information about Project Lead The Way (PLTW) go to http://www.pltw.org/index.cfm

## Engineering / Technology Course Offerings

The Project Lead the Way Engineering and Technology Education program offers students in-depth, hands-on knowledge of engineering and technology-based careers.

#### Middle School Course

Gateway to Technology - 1 credit
An activity-oriented middle school program
designed to help students explore math,
science and technology. There are four
independent, nine week units of study:
Design and Modeling, Magic of Electrons,
The Science of Technology and
Automations/Robotics.

#### **High School Courses**

#### Introduction to Engineering Design

- 1 credit

This course uses a design development process while enriching problem solving skills; students create and analyze models using specialized computer software.

#### Principles of Engineering - 1 credit

An exploration of technology systems and manufacturing processes; addresses the social and political consequences of technological change.

#### Digital Electronics -1 credit

Teaches applied logic using electronic circuitry, which students construct and test for functionality.

#### Civil Engineering / Architecture - 1 credit

Students use state of the art software to solve real world problems and communicate solutions to hands-on projects and activities. This course covers topics such as: The roles of Civil Engineers and Architects, Project Planning, Site Planning, Building Design and Project Documentation and Presentation.

#### **Student Registration**

**Engineering / Technology** 

If your child is interested in the Engineering/Technology field and would like to enroll in the PLTW program, complete this form and mail or email to the address below.

Student's Name:
Student's Current Grade Level:
Guardian's Name:
Contact Phone Number
Address

#### **For More Information Contact:**

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