

## 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
SCIENCE	Int Science I	Int Science II	Biology	Science Elective
	Hon Int Science	Physics or Chemistry	Biology	
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 LANGUAGE		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](http://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.

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>



**Are students  
ready for the  
technological  
world?**

## 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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