

PROJECT LEAD THE WAY – ENGINEERING ACADEMY

Greenfield-Central has joined with a national pre-engineering program to offer college credit courses that are designed to better prepare you for college engineering coursework.

Project Lead The Way - “PLTW” – is a collaborative effort of the math, science and technology departments. Implementation of these courses began in 2003-04.

Project Lead The Way has developed a four year sequence of courses which, when combined with college preparatory mathematics and science courses in high school, introduces students to the scope, rigor and discipline of engineering and engineering technology prior to entering college.

Recommended prerequisite: Successful completion of Algebra in the 8th grade.

Courses are counted as Core 40 directed electives. These can be applied to the Academic Honors Diploma or Technical Honors Diploma. Competencies are defined by Project Lead The Way, Inc. All PLTW courses except Introduction to Engineering (Freshman year) are “weighted grades.”

Upon successful completion of each PLTW course, and the exit exam, students may receive credits at no cost from the following universities: Purdue, Indiana State, IUPUI, University of Southern Indiana, Ivy Tech (dual credit) and Rochester Institute of Technology. (See the guidance department for details)

Students must earn at least a B- or better in all PLTW - Engineering courses, to continue in the program.

Required courses:

9th Grade: IED – Introduction to Engineering Design

10th Grade: POE – Principles of Engineering

11th Grade: DE – Digital Electronics and one of the following:

AE – Aerospace Engineering,

CEA – Civil Engineering and Architecture,

BE – Biotech Engineering.

CIM- Computer Integrated Manufacturing – not offered at this time.

12th Grade: EDD – Engineering Design and Development

Course descriptions of these courses are found in the Technology Education Department section of this guide.



Engineering Academy

CURRICULUM

RECOMMENDED PREREQUISITES	
Algebra I	2 semesters
CORE COURSES	
IED – Introduction to Engineering Design	Freshman year, 2 semesters
POE – Principles of Engineering	Sophomore year, 2 semesters
DE – Digital Electronics	Junior year, 2 semesters
+ 1 Elective from next section	Junior year, (1 elective course) 2 semesters
EDD – Engineering Design & Development	Senior year, 2 semesters
ELECTIVE ENGINEERING COURSES	
For students interested in the following careers	
BE – Biotech Engineering	Biotechnology, biomedical, bioengineering
CEA – Civil Engineering & Architecture	Architecture, Landscape Architecture, Civil Engineering
AE – Aerospace Engineering	Aerospace, Aeronautics, Commercial Pilot, Astronaut
SUGGESTED ELECTIVE COURSE	
CADD – Computers in Design & Production	Sophomore, Junior or Senior year, 2 semesters
SUGGESTED EXTRA CURRICULAR ACTIVITIES	
VEX Robotics team	Freshman or Sophomore year
F1 in Schools team	Freshman or Sophomore year
Super Mileage team	Freshman, Sophomore, Junior or Senior year
Women in Engineering	Freshman, Sophomore, Junior or Senior year (females only)

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