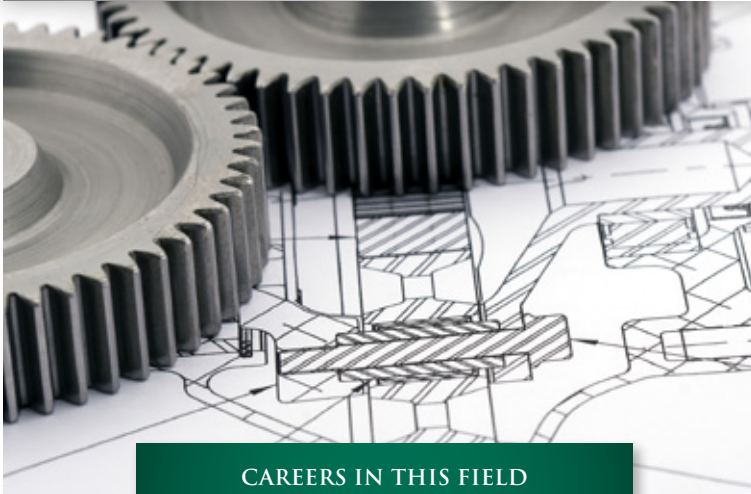


## PRE-ENGINEERING

SOUTHWEST



### CAREERS IN THIS FIELD

*Transfer Degree*

### ASSOCIATE OF SCIENCE (AS) DEGREE

Two-year Associate of Science programs typically contain 40 percent or more general education, with the balance in technical and profession courses. The coursework provides students with a foundation for transfer to a related baccalaureate program at a four-year institution, and equips students with skills for the job market.

### TRANSFERS TO

Purdue University Calumet

Purdue University North Central

Valparaiso University

University of Evansville

University of Southern Indiana

This comprehensive two-year program prepares students for entrance into professional engineering schools. It is designed to extend the scope of student undergraduate education by avoiding premature specialization. Required courses emphasize fundamental knowledge and skills in calculus, geometry, algebra, trigonometry, statistics, dynamics, electrical/mechanical principles, thermodynamics, engineering graphics and design, physics, chemistry, humanities, and the social sciences.

### HIGHER EDUCATION. LOWER COST. PERFECT VALUE.

Get more for your money with classes that are close to home and a fraction of the cost of other colleges and universities in Indiana. Whether you want to move up in your field or enter a new field, Ivy Tech can help you get the skills you need. And if you want to continue on to a four-year degree, Ivy Tech helps make it affordable. Our credits transfer to many colleges and universities, so you can graduate with the same education and much less debt.

### TRANSFER OPPORTUNITIES

Credits from individual Ivy Tech classes transfer to colleges and universities throughout Indiana—and in some cases, entire programs transfer. Whether you are considering a program with a career in mind or want to save money by starting your bachelor's degree at Ivy Tech, transfer options are a great way to get started.

### EARN MORE AND IMPROVE YOUR SKILLS

If you want a good-paying job, you need to invest in your education. With an associate degree from Ivy Tech Community College, you'll earn an average of \$8,000 more each year than you would with just a high school degree. Over the course of your career, this has a tremendous impact on your earning power—a difference of up to \$400,000. As a result, you'll have the chance to explore opportunities that are well worth the time you'll spend in class.



## PRE-ENGINEERING

SOUTHWEST

## ASSOCIATE OF SCIENCE—TRANSFER TO UNIVERSITY OF EVANSVILLE

67 Credit Hours

## FIRST YEAR

## Fall Semester

ENGR 116	Geometric Modeling for Visualization
ENGR 140	Engineering Software Tools I
CHEM 105	General Chemistry I
ENGL 111	English Composition
IVYT 1XX	Life Skills Elective
MATH 211	Calculus I

## Spring Semester

ENGR 160	Engineering Software Tools II
COMM 101	Fundamentals of Public Speaking
or	
COMM 102	Intro. To Interpersonal Communication
MATH 212	Calculus II
PHYS 220	Mechanics

## SECOND YEAR

## Fall Semester

ENGR 251	Electrical Circuits I
ENGR 260	Vector Mechanics-Statics
HIST 101	Survey of American History I
or	
SOCI 111	Introduction to Sociology
MATH 261	Multivariate Calculus

## Spring Semester

ENGR 190	Intro to Engineering Design
ENGR 252	Electrical Circuits II
ENGR 261	Dynamics
MATH 264	Differential Equations
PHIL 101	Introduction to Philosophy
or	
PHIL 102	Introduction to Ethics
PHYS 221	Heat, Electricity, and Optics

## ASSOCIATE OF SCIENCE—TRANSFER TO UNIVERSITY OF SOUTHERN INDIANA

67 Credit Hours

## FIRST YEAR

## Fall Semester

ENGR 116	Geometric Modeling for Visualization
ENGR 140	Engineering Software Tools I
CHEM 105	General Chemistry I
ENGL 111	English Composition
IVYT 1XX	Life Skills Elective
MATH 211	Calculus I

## Spring Semester

ENGR 160	Engineering Software Tools II
ENGL 112	Exposition and Persuasion
MATH 212	Calculus II
PHYS 220	Mechanics

## SECOND YEAR

## Fall Semester

ENGR 251	Electrical Circuits I
ENGR 260	Vector Mechanics-Statics
MATH 335	Calculus III (USI)
PHYS 221	Heat, Electricity and Optics

## Spring Semester

ENGR 190	Intro to Engineering Design
ENGR 252	Electrical Circuits II
ENGR 261	Dynamics
COMM 101	Fundamentals of Public Speaking
MATH 433	Differential Equations (USI)
Elective	Social & Behavioral Science Elective

**Program Advisor:** Bill Perry  
**Phone:** (812) 429-1475  
**Email:** bperry@ivytech.edu

To learn more about employment and salary information for careers in this field, visit the U.S. Department of Labor's Bureau of Labor Statistics website at [bls.gov](http://bls.gov) and the official career site of the State of Indiana, [indianacareerconnect.com](http://indianacareerconnect.com).

Ivy Tech Community College is accredited by North Central Association of Colleges and Schools.

