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.

**Degrees & Certificates Offered (Evansville Campus):**
Associate of Science (AS)

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.

**Our Graduates**
It is anticipated that almost all graduates of the Associate of Science Degree in Engineering program will transfer to a four-year university to continue their education. However, for a number of graduates, the AS degree will be a tool with which they can market themselves to local employers, many of whom have tuition refund programs to support employee education.

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.
PRE-ENGINEERING PATHWAY

ASSOCIATE OF SCIENCE—TRANSFER TO UNIVERSITY OF EVANSVILLE
68-70 Credit Hours

FIRST YEAR
Fall Semester
ENGR 190  Intro to Engineering Design
ENGR 140  Engineering Software Tools I
MATH 211  Calculus I
CHEM 105  General Chemistry I
ENGL 111  English Composition
IVYT 1XX  Student Success Elective

SECOND YEAR
Fall Semester
ENGR 251  Electrical Circuits I
ENGR 260  Vector Mechanics-Statics
MATH 261  Multivariate Calculus
PHYS 220  Mechanics
HIST 101  Survey of American History I
or
SOCI 111  Introduction to Sociology

Spring Semester
ENGR 116  Geometric Modeling for Visualization
ENGR 160  Engineering Software Tools II
MATH 212  Calculus II
COMM 101  Fundamentals of Public Speaking
or
COMM 102  Intro. To Interpersonal Communications

Spring Semester
ENGR 252  Electrical Circuits II
ENGR 261  Dynamics
ENGR 279  Capstone Course
MATH 264  Differential Equations
PHYS 221  Heat, Electricity, and Optics
PHIL 101  Introduction to Philosophy
or
PHIL 102  Introduction to Ethics

ASSOCIATE OF SCIENCE—TRANSFER TO UNIVERSITY OF SOUTHERN INDIANA
68-70 Credit Hours

FIRST YEAR
Fall Semester
ENGR 190  Intro to Engineering Design
ENGR 140  Engineering Software Tools I
MATH 211  Calculus I
CHEM 105  General Chemistry I
ENGL 111  English Composition
IVYT 1XX  Student Success Elective

SECOND YEAR
Fall Semester
ENGR 251  Electrical Circuits I
ENGR 260  Vector Mechanics-Statics
MATH 261  Multivariate Calculus
PHYS 220  Mechanics
ECON 201  Principles of Macroeconomics
or
ECON 202  Principles of Microeconomics

Spring Semester
ENGR 252  Electrical Circuits II
ENGR 261  Dynamics
ENGR 279  Capstone Course
MATH 264  Differential Equations (USI)
PHYS 221  Heat, Electricity, and Optics
ENGR 252  Electrical Circuits II (for BSE Electrical)
or
PHIL 102  Introduction to Ethics (for Non-Electrical)

Program Advisor: Maheshwar Sah, PhD
Phone: (812) 429-1407
Email: msah@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 and the official career site of the State of Indiana, indianacareerconnect.com.
Ivy Tech Community College is accredited by North Central Association of Colleges and Schools.