

ENGINEERING PATHWAY

Bachelor of Science in Engineering

The B.S. in Engineering is a 129-hour degree program that combines a strong core of math, science and engineering courses with an intensive study in one of four concentrations. Students can choose from electrical, mechanical, management and mechatronics concentrations based on their career or academic goals. Engineering students also have the opportunity to work with faculty on ongoing research projects, including Unmanned Aircraft Systems (UAS) as part of the department's Autonomous Vehicle Systems (AVS) Lab.

11th Grade

FALL

MATH 1304
ECON 2301
UIW CORE

SPRING

MATH 1311
UIW CORE (2)

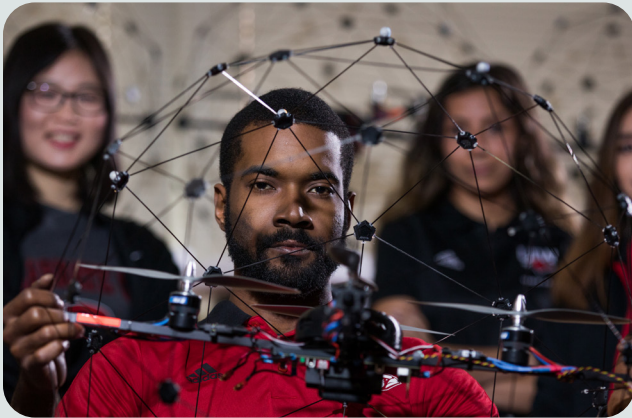
12th Grade

FALL

MATH 2312
ENGR 1201
UIW CORE

SPRING

ENGR 2305
ENGR 2105
ENGR 1310



Graduates can pursue positions in civil engineering, robotics, transportation and aerospace, product design, construction, mechanical design and many more. The U.S. military and government are also major employers of engineering graduates as engineering technicians, researchers, computer engineering technicians and project managers.

SCAN TO
LEARN MORE



BRAINPOWER CONNECTION'S COLLEGE CONNECTION PROGRAM

The Brainpower Connection's College Connection Program offers eligible students a seamless transition to the University of the Incarnate Word, accelerating their academic pathway to UIW and postsecondary education at a reduced tuition rate. Students attend college classes for dual credit on the UIW campus and gain valuable experience to succeed in college. Students must have a C or better in all courses for major, minor, concentration and/or specialization.

FOR MORE INFORMATION

Contact Patricia L. Ramirez, director of Brainpower Connection Programs, at (210) 283-6300 or plramire@uiwtx.edu.





B.S. in Computer Information Systems Pathway Course Descriptions



ECON 2301 PRINCIPLES OF MACROECONOMICS

This course introduces students to economics and the economy. Monetary and fiscal policies of the federal government, as a means of achieving full employment without inflation, are explored. Students are also introduced to alternate macroeconomic approaches to current issues. A description and analysis of the national economic system, within which business operates, lays the foundation for more applied courses.

ENGR 1201 INTRODUCTION TO ENGINEERING

This seminar course introduces both the engineering program at the University of the Incarnate Word and the engineering profession by assigning group projects, inviting guest lecturers and covering engineering topics in decision analysis and professionalism. The class is open to all interested students.

ENGR 1310 ENGINEERING GRAPHICS CAD I

This three-hour course is an introduction to computer-aided drafting using Autodesk software. Students will learn the basics of technical drawing and mechanical design.

ENGR 2305/2105 ENGINEERING PHYSICS I & LAB

This course in Mechanics is a study of the basic concepts of motion, energy, work, momentum, gravitation, fluids, heat and the thermal properties of matter.

Prerequisite: MATH 2312 Calculus I

MATH 1304 COLLEGE ALGEBRA

This three-hour course covers algebraic operations, functions and functional notation; polynomial equations and inequalities; graphing techniques and graphs of polynomial and rational functions; logarithms and exponentials; and problems from the physical and social sciences and business.

MATH 1311 PRECALCULUS

This is a three-hour course that focuses on the properties of functions and their inverses with the study of trigonometric, logarithmic and exponential functions. Students will learn concepts essential to the study of calculus, including, but not limited to, sequences, series, analytic trigonometry and analytic geometry.

Prerequisite: MATH 1304 College Algebra

MATH 2312 CALCULUS I

This is a three-hour course that includes functions, limits, derivatives, indeterminate forms and integrals; exponential and logarithmic functions; trigonometric functions; and applications.

Prerequisite: MATH 1311 Precalculus