(2001). Professor and Department Chair. B.S. and M.S., University of Illinois in Chicago; M.S. and Ph.D., New Jersey Institute of Technology; P.E., CEM.

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(2004). Associate Professor of Engineering. B.S., Hardin-Simmons University; M.S., Texas A&M University; Ph.D., University of Illinois-Champaign; P.E.

1. To provide a solid engineering education that is built on a strong liberal arts and science foundation.
2. To foster an instructional environment that promotes engineering design skills and inventive thinking.
3. To prepare students for successful careers or advanced study in engineering or other professional fields.
4. To prepare students to think employing Christian principles and to act ethically in providing service to their employers, communities, and churches.

Union offers the Bachelor of Science in Engineering, BSE, with concentrations in electrical and mechanical engineering.

Students begJT*yu1( )-eche*yu1r pyu1r epyu1ayu1r -u1ayu1t*yu1oyu1( )-efengJT*yu1( )-e byen rlling in prerequisites and intrductry engineering courses

Introduces computer programming using Matlab as a high-level programming language and Matlab as an engineering computational tool. Includes general computer programming principles and structures and the unique feature of Matlab, such as vector and matrix operations, with application to engineering.

Prerequisite: CHE 111, PHY 231.
Examines the structure of material at the atomic level, including how physical, thermal, and mechanical properties affect the behavior of materials.

Prerequisites: MAT 212 and PHY 231
Introduces vector analysis of forces and torques. Examines rigid bodies and determinate structures at equilibrium. Covers kinematics of a particle and of a rigid body. Presents kinetic analysis using force-acceleration, work-energy, and impulse-momentum techniques.

Prerequisite: CHE 111, PHY 232; Corequisite: MAT 314.
Introduces macroscopic concepts of thermodynamics, in-

Prerequisite: EGR 262.
Introduces fundamental principles of electronics, including analysis and design techniques for circuits containing diodes, field effect transistors, and bipolar junction transistors. Includes weekly lab.

Prerequisite: EGR 210. Reciprocal credit: PHY 416.
Introduces concepts in material science and quantum physics, including modern theory of solids, magnetic and optical properties of materials, semi-conductors and semi-conduc-