

Course Outline

A list and description of courses completed through spring 2009

Language

- ENGL 150 Application of critical reading and thinking abilities to topics of civic and cultural importance. Introduction of basic oral, visual, and electronic communication principles to support writing development.
- ENGL 250 Analyzing, composing, and reflecting on written, oral, visual, and electronic (WOVE) discourse within academic, civic, and cultural contexts. Emphasis on supporting a claim and using primary and secondary sources.
- GER 101, GER 102 Introduction to the German language reading, writing, speaking
- GER 201 German grammar and focus on culture and practical communication skills
- GER 202 German with an emphasis on business environments

Ideal Sciences

- CHEM 177, CHEM 177L Basic university level Chemistry principles and quantitative relationships, stoichiometry, chemical equilibrium, acid-base chemistry, thermochemistry, rates and mechanism of reactions, changes of state, solution behavior, atomic structure, periodic relationships, chemical bonding.
- PHYS 221, PHYS 222 Elementary mechanics including kinematics and dynamics of particles, work and energy, linear and angular momentum, conservation laws, rotational motion, oscillations, gravitation. Heat, thermodynamics, kinetic theory of gases; waves and sound. Electric forces and fields. Electrical currents; DC circuits. Magnetic forces and fields: LR, LC, LCR circuits; Maxwell's equations; ray optics and image formation; wave optics: topics in modern physics.

Mathematics

- MATH 165, MATH 166, MATH 265 Calculus for engineers covering first basic concepts of differentiation and integration then covering techniques of applying calculus to physical problems and finally concepts of 3 and more dimensions and vectors
- MATH 267 Differential equations with Laplace transforms

Electrical Engineering

- EE 201 Emphasis on mathematical tools. Circuit elements (resistors, inductors, capacitors) and analysis methods including power and energy relationships. Network theorems. DC, sinusoidal steady-state, and transient analysis. AC power. Frequency response. Two port models. Diodes, PSPICE. Laboratory instrumentation and experimentation.
- ELT 90 Basic class to relate and demonstrate electronic circuits.
- EE 244 Signals and systems
Introduction to signals and systems. Signal manipulations. System properties. LTI systems, impulse response and convolution. Fourier Series representation and properties. Continuous and discrete-time Fourier Transforms and properties. Sampling and reconstruction. Modulation and demodulation. Applications and demonstrations using MATLAB.
- COM S 207 An introduction to computer programming using an object-oriented programming language.(JAVA) Emphasis on the basics of good programming techniques and style. Extensive practice in designing, implementing, and debugging small programs. Use of abstract data types. Interactive and file I/O. Exceptions/error-handling.
- EE 166 Overview of the nature and scope of electrical engineering and computer engineering professions. Overview of portfolios. Departmental rules, advising center operations, degree requirements, program of study planning, career options, and student organizations.
- EE 294X The roles of professionals in computer and electrical engineering. Relationship of coursework to industry and academic careers. Issues relevant to today's world.

General Engineering

ENGR 101	University information, presentations from various engineering majors Helps students decide on a specific engineering major.
ENGR 160	solving engineering problems and presenting solutions through technical reports. Significant figures. Use of SI units. Graphing and curve-fitting. Flowcharting. Introduction to mechanics, statistics and engineering economics. Use of spreadsheet programs to solve and present engineering problems. VBSCRIPT
ENGR 170	Integration of fundamental graphics, computer modeling, and engineering design. Applications of multiview drawings and dimensioning. Techniques for visualizing, analyzing, and communicating 3-D geometries. Application of the design process including written and oral reports. Freehand and computer methods. AUTODESK INVENTOR computer aided drafting and design
GER 202	German with an emphasis on business environments

Others

C I 100A, C I 100B, C I 100D	Required training for one to become a federally certified para-educator (teacher's assistant)
Psych 101	Introduction to psychology
Lib 160	How to use the resources provided by the university's library
Hdfs 283	Personal financial planning