Catalog Description
An introduction to the various engineering disciplines, the engineering approach to problem solving, and the design process. Projects emphasize the importance of teamwork, written & oral communication skills, as well as ethical responsibilities.

Prerequisites
Corequisite(s): MATH 190 and co-enrollment in ENGL 111G.

Textbooks

Course Objectives
• Engage freshmen engineering students in critical thinking and the design process while learning important team building skills and ethical approaches to problem solving.
• Gain an appreciation of and the skills for effective communication, teamwork, ethics.
• Become familiar with the engineering profession.
• Develop flow diagram construction and structured programming skills in MATLAB.
• Learn use of engineering tools (spreadsheets, drawing software, math, economics, etc.)
• Become knowledgeable of dimensions (length, time, mass, force, temperature, electric current, energy and power) and related engineering parameters.

Topics Covered
• Introduction To The Engineering Profession
• Preparing For An Engineering Career
• Introduction To Engineering Design
• Engineering Communication
• Engineering Ethics
• Fundamental Dimensions And Units (length, mass, time, force, temperature, electric current, energy, power, and others)
• Electronic Spreadsheets and structured programming with Matlab
• Engineering Graphical Communication including Drawings And Symbols
• Engineering Materials

Class/Laboratory Schedule
• Lecture Meeting Time: TR 1020-1135
• Meeting Location: OH 151
Instructor Information

David A. Rockstraw, Ph. D., P. E.; Jett Hall 259; office (575) 646-7705; cell (575) 635-9539;
drockstr@nmsu.edu

Assessment

The class is worth 1000 points as shown in the table below. Homework, quizzes, and project work prior to each exam will account for 140 points (560 points in total for all 4 units).

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<th>Item</th>
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<th>Assignment Type</th>
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Grading (min %): A (94); A- (92); B+ (90); B (86); B- (83); C+ (80); C (73); C- (70); D (65)

Students with Disabilities

Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) covers issues relating to disability and accommodations. If a student has questions or needs an accommodation in the classroom (all medical information is treated confidentially), contact:

NMSU policy prohibits discrimination on the basis of age, ancestry, color, disability, gender identity, genetic information, national origin, race, religion, retaliation, serious medical condition, sex, sexual orientation, spousal affiliation and protected veterans status.

Furthermore, Title IX prohibits sex discrimination to include sexual misconduct, sexual violence, sexual harassment and retaliation.

For more information on discrimination issues, Title IX or NMSU’s complaint process contact:

Gerard Nevarez, Executive Director or Agustin Diaz, Associate Director
Office of Institutional Equity (OIE)
O’Loughlin House
Phone: (575) 646-3635
E-mail: equity@nmsu.edu
Website: http://www.nmsu.edu/~eeo/

Trudy Luken, Director
Student Accessibility Services (SAS)
Corbett Center, Rm. 244
Phone: (575) 646-6840
E-mail: sas@nmsu.edu
Website: www.nmsu.edu/~ssd/