GES 131, Introduction to Engineering

Instructors: Jim Richardson Robert Leland

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Catalog Description
GES 131 Foundations of Engineering I. (2-0) Two hours.
Prerequisites: GES 100 and MATH 112 or math test placement in MATH 115 or higher.

Introductory freshman-level course for students from all engineering disciplines incorporating an overview of engineering as a profession and basic skills required for engineering with an emphasis on problem solving, ethics, teaming, oral and written technical communication, and the design process. Students are recommended to have a demonstrated knowledge of computer software usage for spreadsheets, word processing, presentation software, e-mail, and the internet prior to GES 131 or to enroll in CS 102 in conjunction with GES 131.

Prerequisites
GES 100 and MATH 112 or math test placement in MATH 115 or higher.

Corequisites none

Course Objectives Students will improve their problem-solving skills and mastery of pre-calculus mathematics.

Course Website richardson.eng.ua.edu/GES_131

Texts and Materials
3. Engineering paper

Suggested Texts and References none

Grading
Exams 60%
Quizzes 20%
Homework, In-class Assignments & Course Notebook 10%
Projects 10%
Professional Society Activity 5%

Attendance Policy Students are expected to attend all lectures. In an absence is unavoidable, the student should contact the instructor before the class meets. Excessive unexcused absences may result in grade reductions.
**Homework Policy**  
HW assignments are due at the beginning of class. Late assignments will be accepted only with prior approval from the instructor.

**Exam Policy**  
Make-up exams will only be given with prior approval of the instructor.

**Policy on Missed or Late Coursework**  
Homework will be accepted late only with prior approval of the lab instructor.

**Course Notebook**  
Students are required to keep course notes, handouts, homework, quizzes, and exams in a three-ring binder. The notebooks may be collected and may be graded prior to, or during, the final exam. At the end of the course, students should number the notebook pages and add an index page. The binder itself should have the course name on the spine and on the cover.

**Notebook Grading**  
Notebooks will be graded using the following criteria:
- Completeness (Does the notebook contain all of the course materials?)
- Legibility (Are the notes easy to read?)
- Organization (Is specific material easy to find?)

**Professional Society Activity**  
As incentive for students to make friends with other students in their major, students will receive up to five bonus points for participating in student professional-society activities. Up to two bonus points may be earned for attending meetings (one per meeting) and up to three bonus points may be earned by participating in other engineering student-society activities. Students should type a short description of the activity and ask the president or chapter advisor (a faculty member) to sign and date the description.

**Academic Misconduct**  
Any act of dishonesty in any work constitutes academic misconduct. The Academic Misconduct Disciplinary Policy will be followed in the event of academic misconduct and will be handled by the Dean’s office.

**Accommodations**  
Reasonable accommodations are made on an individualized basis. It is the responsibility of persons with disabilities, however, to seek available assistance and make their needs known. The University has designated the Office of Disability Services as the campus coordinating office for the provision and delivery of services and reasonable accommodations that ensure the University's programs, services, and activities are accessible to students with disabilities. The Office of Disability Services is available to assist any student who has a qualified and documented disability. Please contact the Office of Disability Services at 348-4285 for additional information.

**Schedule/Topic Outline**  
- Overview of effective problem solving
- Reading the problem statement
- Drawing a meaningful sketch
- Assembling useful mathematical tools
- Modeling the problem
- Evaluating solution strategy
- Checking answers for reasonableness

**Important Dates:**  
See the course calendar on the class website for important dates including exam dates, HW due dates, and project due dates.