

# ENGR 1201

## Introduction to Engineering

SECTION NUMBER AND SYNONYM:

CREDITS: (2-2-0)

INSTRUCTOR:

COURSE DESCRIPTION:

Introduction to engineering as a discipline and profession. Includes instruction in the application of mathematical and scientific principles to the solution of practical problems. A broad range of problems is considered in order to introduce the student to the various engineering majors and careers.

PREREQUISITES:

1. One full year of high school physics or equivalent.
2. Mathematics through trigonometry, MATH 1316, or equivalent.

TEXT:

**Design Concepts for Engineers, 4th edition**, by Mark N. Horenstein.

OTHER: Scientific calculator.

METHODOLOGY: Lecture/discussion.

LECTURE: (example) TTh 11:00 - 11:50 A.M. RGC 328

OFFICE LOCATION:

PHONE NUMBER:

E-MAIL ADDRESS:

OFFICE HOURS:

APPOINTMENT HOURS:

## COURSE RATIONALE:

A general overview of engineering as a discipline of study and a profession. An introduction to engineering analysis problem solving with emphasis on clarity of communication of results. Introduction to the engineering design process through engineering projects with emphasis on adherence to timeline and budgetary constraints and team working skills.

## COURSE OBJECTIVES:

1. Introduce the student to the various engineering college disciplines.
2. Introduce the student to the various engineering professions.
3. To develop engineering analysis problem solving skills.
4. To develop the use of graphs and charts to communicate.
5. To introduce the student to the engineering design process.
6. To develop critical thinking.

[Instructor may add to objectives as appropriate]

GRADING SYSTEM: (The grading system may vary depending on the instructor)

Midterm	15%
Final exam	15%
Homework	20%
Projects	40%
Attendance	10%

## COURSE POLICIES:

1. Attendance Policy: [up to each instructor]
2. Withdrawals: [Instructor initiated withdrawals are discouraged. Instructor may want to include the last day of student and instructor initiated withdrawals.]
3. Incomplete Rule: see incomplete rule in the College catalog. (This section in the catalog is 3 paragraphs long.)
4. Scholastic Dishonesty: Acts prohibited by the college for which discipline may be administered include scholastic dishonesty, including but not limited to cheating on an exam or quiz, plagiarizing, and unauthorized collaboration with another in preparing outside work. Academic work submitted by students shall be the result of their

thought, research or self-expression. Academic work is defined as, but not limited to tests, quizzes, whether taken electronically or on paper; projects, either individual or group; classroom presentations, and homework.

5. Academic Freedom: Students are free to disagree with instructors on matters of opinion or personal philosophy, and will incur no penalty from doing so. However, instructors will judge student work based upon its relation to the current state of mainstream scientific fact and theory students are allowed to voice opinions, concerns, complaints and suggestions to the instructor. However, it is up to the instructor to decide how to use the students comments to meet the classes best interests.
  
6. Student Discipline: Matters of student discipline will be adjudicated by the instructor on a case-by-case basis, in conjunction with the Task Force Leader or Dean. Students may consult with the Office of Student Services or the Associate Dean at their campus on these matters.
  
7. Office with Student with Disabilities: Each ACC campus offers support services for students with documented physical or psychological disabilities. Students with disabilities must request reasonable accommodations through the Office for Students with Disabilities on the campus where they expect to take the majority of their classes. Students are encouraged to do this three weeks before the start of the semester.
  
8. Safety Statement: Health and safety are paramount values in science classrooms, laboratories and field activities. You are expected to learn, understand and comply with ACC environmental, health and safety procedures and agree to follow the ACC science safety policy. You are expected to conduct yourself professionally with respect and courtesy to all. Anyone who thoughtlessly or intentionally jeopardizes the health or safety of another individual will be immediately dismissed from the days activity, may be withdrawn from the class, and/or barred from attending future activities. Specific safety training will take place before most activities. If you are late and miss this training, you will not be able to participate in the activity. You can read the complete ACC science safety policy at: [http://www2.austincc.edu/sci\\_safe/](http://www2.austincc.edu/sci_safe/).

#### COURSE OUTLINE/CALENDAR:

To be provided by each instructor. Can be attached as an appendix to the syllabus.

#### TESTING CENTER POLICY:

Engineering tests may not be given in the testing center except for make up tests.