

Instructor: K. C. Diehl, 211 DeLoach Hall, 962-4079, email: diehlk AT uncw DOT edu

Office hours: WF, 9:00-10:00 a.m., 3:00 p.m.-4:30 p.m.; TR, 1-5 p.m.

Course web page: <http://www.uncw.edu/preeng/egn101.htm>

Required materials:

Textbook: Engineering Your Future; Oakes, Leone, Gunn; Great Lakes Press, 2nd Ed.

Grading:

Homework - 35%; design project - 20 %; writing assignments - 10%; quizzes - 15%; exam - 20%.

CLASS POLICIES:

Attendance:

Class attendance will not be recorded or figured as part of the final grade. It is the responsibility of the student to attend class regularly. Passing this course will be difficult if you skip many classes. Assignments and notes missed due to absences are the responsibility of the student. Assignments are due as per the assignment schedule regardless of whether you come to class or not.

Homework:

- Homework is to be submitted at the beginning of class on the date it is due.
- Late homework will **NOT** be accepted.
- Homework, part or all, handed in during class is considered late and will not be accepted.
- If you are planning to miss class on the day an assignment is due, make arrangements to turn it in before class.
- Waiver of any penalties resulting from late assignments caused by illness will be granted only with authentication.
- Out-of-class Writing Assignments must be done with a wordprocessor, 12 point Times Roman font, one inch margins on all sides, and single spaced. A downloadable template (template.doc) is provided at: <http://www.uncwil.edu/preeng/files/assignments/>
- All Problem Sets with the exception of computer assignments **MUST** be done with pencil, on engineering paper. Homework done in ink will not be accepted.
- **Electronic submission of homework assignments** - Some homework assignments can be submitted as email "attachments". No homework assignment can be submitted in the body of an email note. Homework assignments submitted electronically are subject to the same rules as outlined above. A homework assignment that was completed (it's on my roommate's/Mom's/Sister's computer, my computer crashed, etc., etc.) but not submitted is also subject to the same rules as above. A homework assignment that was sent but that doesn't reach me is also subject to the same rules as above. Email is very reliable and there are messages that alert you to the fact that an email transmission was not completed. I can only accept the following file formats as attachments: WordPerfect, Word, Quattro Pro, and Excel. Please put the assignment number in the email subject line.
- Assignments that are to be completed using a computer are to be done individually: one person, one computer. Copying of files will be considered a violation of the honor code.

Email:

I will use your UNCW email account to send you course and career information. Get used to using it. If you don't you may miss out on important information.

Quizzes:

There will be announced and unannounced quizzes. The quiz grades will be averaged for final grade calculation. The lowest quiz grade will be dropped. Because one quiz grade will be dropped, missed quizzes can not be made up for any reason.

Group work:

Groups of three to four will be assigned in which some homework and design projects will be performed. At the end of the semester, group members will grade each other and themselves on their contribution to the group.

Extra credit:

Three points will be added to the final grade of any student who participates in at least five engineering society meetings.

Other:

Use of tobacco products, pagers, cell phones, MP3 players, iPOD's, radios, and computers is not allowed in this class.

Any student who requires assistance due to a disability must report to the instructor the first week of class.

If at some point in the semester you decide to drop this course, only you can do so on SEANET. Do not assume that if you stop coming to class you will be removed from the roll. Otherwise you will receive an F.

Instructional objectives:

Upon successful completion of this course, the student will be able to:

- identify what engineering is and what an engineer does;
- identify the most common engineering disciplines;
- list and explain the steps involved in becoming a professional engineer;
- distinguish ethical from unethical engineering practice;
- compare and contrast unit systems;
- apply problem solving techniques;
- check equations for unit consistency;
- apply unit conversions in problem solutions;
- apply computer techniques to aid problem solving;
- formulate problem solutions;
- interpret problem solutions;
- present data and solutions in appropriate format;
- use engineering-related web-based resources;
- explain the design process;
- work effectively in groups.

<u>Topic</u>	<u>%</u>
Introduction to the program and the profession	20
Professionalism and ethics	15
Problem solving	20
definition, formulation, interpretation, presentation, unit systems, unit consistency and conversion	
Computing resource use	10
Design	25
Writing	10

About the textbook: the textbook is an aid or supplement to the course and not the course itself. A few of the homework assignments will come from the textbook while almost all quizzes will cover designated reading material in the textbook. A majority of the homework assignments will be a review of basic math skills such as algebra, trigonometry, and geometry as exercises, and with application to simple engineering concepts. In summary do not expect to simply read the textbook and pass the course. The course will comprise much more through handouts and in-class exercises.