

ENGR 0011: Introduction to Engineering Analysis

In this course, we will learn basic problem-solving skills using Excel. We will also learn to design a webpage using html and JavaScript, and we will explore file manipulation using UNIX. In addition, we will address teamwork and professional integrity, both important aspects of engineering.

This is a team-based, hands-on course, in which most of our class time will be spent working in teams to develop programs, solve problems, and participate in discussions, using what we learn in the course.

Course Learning Objectives

At the end of this semester, you will each be able to:

- Use the internet to transfer files and maintain your UNIX account
- Solve engineering problems and analyze data using spreadsheets (Excel)
- Design a web page using html
- Recognize the importance of integrity in the engineering profession
- Demonstrate written and oral communication skills
- Introduce skills for high-performing teams

Learning Environment

This course will rely on active learning. Active learning will require your participation on in-class assignments and discussions. Our intent is to keep you actively involved in the learning process to the greatest extent possible.

The classes are taught by faculty members from various departments within the School of Engineering. These lecture sections are coordinated and all cover the same material. The faculty will be assisted by teaching assistants (TAs), who will help answer questions and grade homework, quizzes, and exams.

Your ability to meet the learning objectives in this course will depend on how well both you and the instructional team fulfill our responsibilities. Our responsibilities this semester include the following:

Academic and Professional Integrity

Our Responsibilities	Your Responsibilities
We aim to do our work with integrity, and commit to the following responsibilities: <ul style="list-style-type: none">• Come to class prepared• Come to class on time• Teach content in a clear, understandable manner• Answer your questions and/or guide you to the answers• Treat you with respect and in a professional manner• Tell you how we will grade you and grade you fairly• Grade in a timely manner• Do our best work	If you aim to do your work with integrity and meet the learning objectives, you should commit to the following responsibilities: <ul style="list-style-type: none">• Come to class prepared• Come to class on time• Be attentive and engaged in class• Ask questions any time you need clarification• Treat everyone with respect and in a professional manner• Complete assignments in an honest manner (see below)• Submit assignments on time• Do your best work

In cases where you or we are not fulfilling our responsibilities, we have the right to respectfully tell each other.

Completing Assignments in an Honest Manner – What Does That Mean?

In this class, you will be completing assignments that will be used to assess your knowledge and abilities according to the course learning objectives. And, as noted earlier, it is your responsibility to complete both your individual and team assignments in an honest manner. What does this mean?

When working on a team, ask yourself if and to what extent you contributed to the work your team is submitting. We cannot assess how well you are meeting the learning objectives if you didn't contribute to the team assignment. If you don't contribute, you are "free riding," which is a form of cheating.

When working on an individual assignment, you do not have to sequester yourself in a room with no contact to the outside world! But, the work should represent your knowledge and abilities (rather than a team's knowledge and abilities) and so any help you receive must be the kind that we (the instructional team) would give you, not a passive receiving of answers from your classmates, which is a form of cheating.

To know whether you are cheating, ask yourself these questions:

- *Was my work active or passive?* Did I engage in a discussion about what to do (active), or did I simply write what I was told to write (passive)? If you engaged in a discussion, you were likely active in the learning. If you simply wrote the answer(s) you were given, this is cheating.
- *Did I directly copy something from a textbook or someone else's assignment?* If you directly copied something, this is cheating. Note: You can only copy things from textbooks or other sources, such as when writing a research report, if you put what you copied into quotation marks and cite the source.
- *Did I let someone directly copy something from my assignment?*
- *Am I learning/did I learn something?* When you work with someone else honestly, you help each other better understand the concepts and knowledge that are the basis of an assignment. When you cheat, you are just trying to get the assignment done without learning the material. Cheating does not result in learning. When you cheat, you are just copying answers, not learning.
- *Would I do this if the professor was here?* If you don't know whether something is considered cheating, please ask your instructor. Otherwise, ask yourself if you would be doing this if the instructor were in the room. If you are doing something you would not be doing if the instructor were in the room, consider this to be cheating.

More examples of completing your work in a dishonest manner (that is, cheating) for this class are: copying assignments from others, not citing sources that you used, copying on exams/quizzes, helping others cheat, submitting work that is not your own, and altering exams/quizzes/assignments after they have been graded. Remember, if you don't know if something is considered cheating, (a) ask your instructor! or (b) ask yourself if you would be doing that if the instructor was in the room.

According to the University: "A student has an obligation to exhibit honesty and to respect the ethical standards of the profession in carrying out his or her academic assignments." (from <http://www.engineering.pitt.edu/Academic-Integrity-Guidelines/>)

If you have a disability: Contact the Office of Disability Resources and Services (DRS), 216 William Pitt Union, 412-648-7890/412-383-7355 (TTY). They will determine and let your instructor know of appropriate accommodations.

Per University policy, recording classroom lectures or in-class activities is not allowed without written permission from the instructor, obtained in advance.

Disability Services

Diversity and Inclusion

The University of Pittsburgh does not tolerate any form of discrimination, harassment, or retaliation based on disability, race, color, religion, national origin, ancestry, genetic information, marital status, familial status, sex, age, sexual orientation, veteran status or gender identity or other factors as stated in the University's Title IX policy. The University is committed to taking prompt action to end a hostile environment that interferes with the University's mission. For more information about policies, procedures, and practices, see: <http://diversity.pitt.edu/affirmative-action/policies-procedures-and-practices> .

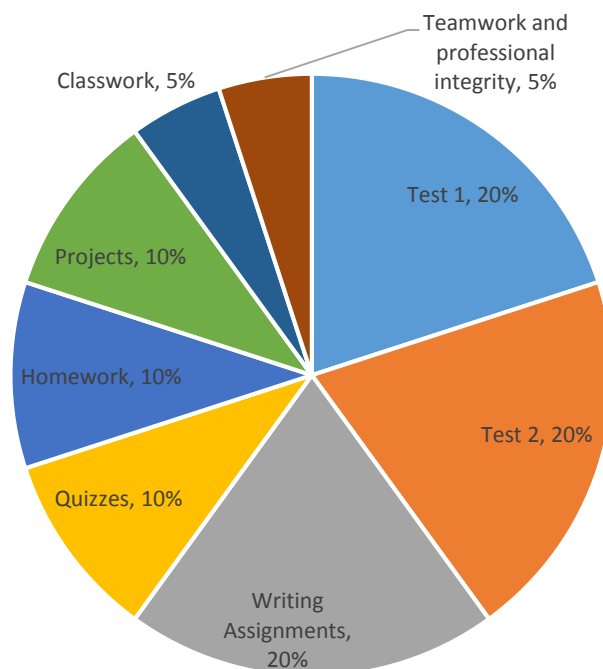
We ask that everyone in the class strive to help ensure that other members of this class can learn in a supportive and respectful environment. If there are instances of the aforementioned issues, please contact the Title IX Coordinator, by calling 412-648-7860, or e-mailing titleixcoordinator@pitt.edu. Reports can also be filed online: <https://www.diversity.pitt.edu/make-report/report-form> . You may also choose to report this to a faculty/staff member; they are required to communicate this to the University's Office of Diversity and Inclusion. If you wish to maintain complete confidentiality, you may also contact the University Counseling Center (412-648-7930).

Grading

Below, you will find how you will be graded. You must complete the Writing Assignments to pass the course. **Your exam grades must average to a minimum of 60.00% in order to pass the course. You will not pass the course, regardless of your other assignment grades, if your exams do not average to a 60.00%.** If you decide to drop the course, remember that means you will not complete your writing requirements and you will be required to take the University General Writing Course.

A+ 98-100	A 93-97	A- 90-92
B+ 88-89	B 83-87	B- 80-82
C+ 78-79	C 73-77	C- 70-72
D 60-69	F <60	

Note: We all make mistakes! So, if you think there has been an error with any of your grades, please contact your instructor or TA no later than one week after you have received your grade.



Additional Course Policies

Attendance is important! If you can't come to class, please contact your instructor prior to the absence and we will discuss how you can make up any assignments.

Submit your assignments by the date/time specified! Late assignments will NOT be accepted, unless you have previously discussed with your instructor.

Communicate possible grading errors in a timely manner! We all make mistakes! So, if you think there has been an error with any of your grades, please contact your instructor or TA no later than one week after you have received your grade.

Professional behavior is important! Please make sure you act professionally. This means not using your cell phones or computers for non-class purposes while in class, and not sleeping or engaging in non-class activities while in class. Basically, this means committing to the responsibilities outlined in the table on page 1, under "Your Responsibilities".

Dedicate the necessary time! For every credit, it's expected that you will work 3 hours outside of class – this is generally expected in all courses, not just this one.

Get involved! If you participate in the in-class discussions and activities, and do your best with the take-home and group assignments, you can expect to really learn the material and do well in this course.

Have fun! The more engaged you are in the course, the more you will enjoy it!

Strategies for Success

Here are some suggestions to help you succeed in this course:

- Ask questions in class and during office hours. Your instructor will let you know his/her office hours. You can also go to the TAs' office hours (see document in CourseWeb for more information about TAs' office hours).
- Attend class and participate. Over the years, we have found a strong correlation between class attendance and final grades. Those who attend class, participate actively, and do their homework conscientiously will get good grades. Those who skip class and/or skimp on their homework get low grades.
- Prepare ahead of class. Read the assigned book sections and review class notes and practice problems.

Required Resources

Please bring the following with you:

- Textbook: "Introduction to Engineering Software Tools" 2nd Edition by Software Education and Support, available at the book store
- A flash drive

ABET Criterion 3

ENGR 0011 contributes to the following ABET Criterion 3 outcomes:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies