FALL 2024



EGNE 1210 Engineering Design I: Graphics

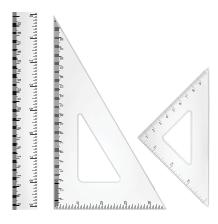


Professor: Don MacNeil

Welcome to Design I! In this course, we introduce you to the field of engineering design and give you a taste of what your future as an engineer might look like. We will focus on engineering graphics, which is presenting your designs both as hand sketches and computer models, but we have a hands-on design project at the end of the course as well.

This handout is to provide you with some information and answer some frequently asked questions before your arrive on your first day. However, you do not need to do anything before the first lecture everything can wait until then if you wish..

Engineering Kit



This course involves a lot of hand drawing on paper by pencil, like a traditional draftsman, and every student will need their own drawing

supplies. You can use your own supplies if you already have them, or you can buy them either from the SMU bookstore or from another store of your choosing.

The items that are absolutely necessary are two sizes of mechanical pencils (two of 0.5 mm, 0.7 mm,



or 0.9 mm leads) and two triangles (30/60 and 45/45 triangles). Also a measuring ruler in mm (either as part of a triangle or separate) and eraser are recommended.

Course Textbook

All of the material for the course is covered in lectures or uploaded to the course website. However, there in an online textbook that can be purchased or rented for the semester with exercise problems and reference materials. We will cover different options in the first lecture, and there is no need to purchase ahead of time.

Software

We will be using professional modelling software— SolidWorks— in the second half of the course. It can be accessed through Saint Mary's AppsAnywhere, which allows you to run the program via any browser and internet connection. It can also be downloaded for free with our university code for those who want to install it on their own computer. It will not be used until the middle of October, and it will be discussed in class before then. Other optional software might be used, and will be introduced as required.





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Laptops

Laptops are not required for this course, but many students prefer to use their own computers for completing their assignments (in the second half of the course). If the software is accessed via a browser, there are few restrictions on what type of laptop you use, and a good internet connection is needed. If the software is downloaded, then some older or "lighter" laptops might not work well, or just very slowly.

In any case, you can loan out university laptops for use during lectures and labs, and can use university computers on campus outside of class time, so there is no requirement for students to have their own computer or laptop. Since we do not use software until October, you can wait before deciding what you wish to do.

Can I Use an Apple Computer?

Yes. In fact, I use one myself. As noted above, the software is accessed via a browser so the computer does not matter much. Even if downloaded, the software can be run by using additional software. This will be discussed in class.

Is this course online or remote?

Officially this course is "in person." Lectures are on Mondays and Wednesdays (at one of three time slots), and much of the work is presented on the white board or overhead projector. For better accessibility, however, the lectures are generally live-streamed and also recorded for later playback. There is no official requirement for you to be at lectures (except during the design project or tests) but it is of course highly encouraged.

Labs are held on Fridays. They are generally not livestreamed and students are expected to attend, and attend the lab they are registered in. Assessments are generally held during these labs.

See you in September, and enjoy the rest of the summer!



