

The Best Resources for Success in ENGR 112

PROFESSORS AND GTAS

Your professors and TAs want you to be successful in this course! We know the course is challenging, but we're here with support resources to help you meet that challenge. The best thing you can do is to come in and get help from TAs or instructors during office hours. Here are some ways to use office hours effectively:

- **To get help with homework problems.** First, look through the homework problem and begin your work on it. If you get stuck, come to office hours. Be prepared to say "here's what I've done" or "here's what I'm thinking" so the TA knows you've already tried to solve it, and bring your laptop with your work. *Remember:* late homework is not accepted. Start homework ASAP so you have time for office hours help.
- **To clarify conceptual or technical questions.** Visit office hours with specific questions or areas of confusion so you can improve your understanding of current material before learning new material. Don't wait until you've got 1 hour left on the assignment – go as soon as you realize you're confused!
- **To troubleshoot missing points on assignments.** Be proactive and visit office hours early to learn if you're missing points because of the content or because of the technical requirements for submissions.
- **To create a game plan for the course.** Each week in this course builds off previous weeks. If you get behind, go to office hours and create a plan to get back on track. If you're concerned about your performance or scores, go to office hours. Have we emphasized this enough? OFFICE HOURS! GO THERE!

PEERS, CLASSMATES, OTHER STUDENTS

Collaboration is encouraged in this course – professionals in this field succeed most when working well with their peers. Meeting with classmates is a great opportunity to practice this kind of work as you think together through homework problems, talk through concepts, and prepare for exams. Additionally, working with others will give you a sense of support and community when the course gets hard. **Be aware:** plagiarism is a risk when working collaboratively. Your code *cannot* be the same as someone else's. This means it can't be cut and pasted, copied line-for-line, or made your own simply by changing the variables or labels. How, then, should you work together? *Option A:* meet to talk about the overarching approach, but then go to work on your code later, on your own. *Option B:* Work near each other – talk about concepts and approaches, then go code ON YOUR OWN COMPUTER without looking at others' work. When you get stuck, talk again. Then code. Talk and think together. Code on your own. Repeat. Repeat. If you come together to prepare for exams, use the time to review concepts, program flow, and commands. Create practice questions and practice exams to work through together.

ACADEMIC COACHING @ THE ACADEMIC SUCCESS CENTER (ASC)

Academic Coaches are trained to help you improve your academic performance. Sign up for a 50 minute 1:1 conversation with a coach and they'll work with you on how you're currently approach your math course (or any course) and how you might be able to fine tune some of those study strategies. Feel like you're not studying efficiently? Feel like you know the material but can't perform well on the tests? Coaches can help! Set up free appointments online at bitly.com/getcoachedOSU or come to the ASC main office (125 Waldo).

OTHER PROGRAMS & SUPPORT:

- Dearborn 119:* This study space is available for you to use to work on your homework problems, to collaborate with your peers, and to connect with other students.
- Technology questions:* Information Services Service Desk (Milne 201, online, & at 541-737-8787).
- The Learning Corner* – a website with study strategies, videos, and worksheets: success.oregonstate.edu/learning.
- ASC Drop-in Consultations* (Waldo 125) – Information on campus resources and how to use them.
- Your Academic Advisor* – Course planning, campus resources, S/U/W options, and so much more.



HOW TO PLAN YOUR ENGR 112 WEEK

Day	Goal	Tasks
Sunday is Prep Day	Preview the concepts for class so you're prepared to listen and ask questions. It'll all make more sense if your brain is primed to listen.	<input type="checkbox"/> Read ZYBooks subset (listed in Canvas) (1 hour) <input type="checkbox"/> Additional optional activities: Read lecture PDF, read supplemental lectures and scripts, watch video before lecture
Monday is Lecture Day	Understand key concepts demonstrated.	<input type="checkbox"/> Go to class, watch demos, take notes <input type="checkbox"/> Identify areas of confusion
Before Lab	Prepare for lab work before you get to the lab itself so you're able to make the most of that time.	<input type="checkbox"/> Do ZYBooks participation exercises (1 hour) <input type="checkbox"/> Skim lab exercise (15 minutes) <input type="checkbox"/> Additional optional activities: Do "Getting Started" before the lab
In Lab	Learn to apply course concepts in basic problems before starting homework.	<input type="checkbox"/> Take lab quiz (5 minutes) <input type="checkbox"/> Listen to TA's explanation <input type="checkbox"/> Work on lab itself <input type="checkbox"/> Submit lab on Gradescope and turn in scripts on Canvas
After Lab/ Before Recitation	Finish the lab work (as a stepping stone to homework) and prepare for the recitation/homework.	<input type="checkbox"/> Get help on lab in office hours if needed <input type="checkbox"/> Finish lab and turn in (if not done so in lab) <input type="checkbox"/> Read homework problems (20 minutes)
In Recitation	Get started on the homework problems and identify any issues you might have in understanding the concepts.	<input type="checkbox"/> Complete worksheets <input type="checkbox"/> Start homework problems <input type="checkbox"/> Identify questions and <i>ask them</i>
After Recitation	Use your available resources to turn your homework in ON TIME (no late work!).	<input type="checkbox"/> Study groups: talk about homework (1-3 hours) <input type="checkbox"/> Code homework (on own!) (1-2 hours) <input type="checkbox"/> Bring homework questions to TA office hours
Continual Work	Meet the deadlines for homework assignments! Do a little bit of work EVERY DAY. This will support your exam preparation, too!	<input type="checkbox"/> Turn in homework on Gradescope and scripts on Canvas once completed <input type="checkbox"/> Monitor your grades – if you're not getting full points, identify why and troubleshoot early

7 STRATEGIES FROM ENGR 112 FACULTY

1. When you get frustrated/stuck, STOP. Go do something else. Talk to a friend. Write down your problem on a piece of paper and stick it in your pocket. Why? Because your brain will keep working on it! Sometimes it just takes time and space for the answer to become clear.
2. Do it on paper first. Pretend you're the computer and walk through the steps you'll take to solve it. Check that your code is doing what you want it to do, don't just assume that it is.
3. Look for examples in the lectures/labs that are similar.
4. Learn to use the debugger.
5. Split your work up over the week (this will mean less total time spent working). This strategy can make coding more manageable/less intimidating, and helps you to stay on top of the material. Understanding comes from doing/trying, then sleeping on it, so don't put the work off. Start early and be consistent.
6. Take the opportunities offered for extra credit! There's a lot of extra credit in this class. It's there to provide a "cushion" in case it takes a while for something to click.
7. DON'T GIVE UP. This is hard, but there's a lot of TA support, and you *will* get it if you keep working at it. We believe in you.

