

ENGI 1331 UTA UH Engineering Questions Only

Matthew Woodring

In this document, I provide a list of common questions and answers students have about engineering at the University of Houston. If you would like me to expand on any of these answers, please reach out to me!

The questions that are highlighted are the most important ones.

UH Engineering Questions:

- 1. “Is ENGI 1331 a comparatively easier class compared to sophomore and junior level engineering courses?”**
 - a. In my experience, yes. However, if you find this course hard, it does not necessarily mean you will find all engineering classes hard. Many students have difficulty with the programming in ENGI 1331, but go on to great success in more senior classes that do not involve programming. Please do not think you cannot complete an engineering degree just because you find this course difficult.
 - b. The one thing you will be unlikely to find better in other courses is professor and UTA support. The UTA system in this course is the exception, not the norm, at UH. In future engineering classes, be prepared to not have a large amount of dedicated UTA's available to help you. In many courses, there will not be a UTA available to help at all.
- 2. “When should I register for next semesters courses?”**
 - a. The second you are able to. I have seen many students not know registration opened and end up not getting the courses they need. Avoid this unnecessary difficulty by watching your email and AccessUH account carefully. Many engineering courses do not have enough seats available, so you need to register as soon as you can.

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3. “Is Engineering Mathematics (MATH 3321) difficult?”

- a. For some reason, I get asked about this course more than any other. I am guessing it is because, unlike calculus, students do not know what to expect. The good news is that this class is not difficult if you can learn the algorithms for solving the different forms of differential equations. Once you learn the algorithms, every problem is solved exactly the same. You just need to have the steps memorized for each algorithm and know when to use them. In some ways, it is a less creative and more robotic class than calculus. You can read about what topics are covered here: <https://www.uh.edu/nsm/math/undergraduate/courses/math3321/>. You can get a great head start on the class here: <https://www.math.uh.edu/~etgen/MATH3321-Sum22.html>. This is the best resource for MATH 3321 at UH.

4. “Is Technical Communications for Engineers (ENGI 2304) difficult?”

- a. I did not find it difficult. I did find it entertaining and I improved my writing a lot. It is probably one of the most important and useful classes I have taken at UH. I highly recommend Dr. Wilson for this course. He is an excellent professor and makes this writing intensive course somewhat fun.

5. “What is the hardest engineering course for an ECE major?”

- a. Applied Electromagnetic Waves (ECE 3317) was the hardest class for me. Other classes that myself and others have found difficult include: Signals and Systems (ECE 3337), Electronics (ECE 3355), and Circuit Analysis II (ECE 2202).

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6. “Which professor should I take for [certain class]?”

- a. With professors changing every semester, it is hard to say which one you should pick for any given semester. I recommend using the following four resources together to make an informed decision. You are always welcome to ask any UTA for their experience with a given professor or class.
- b. <https://www.ratemyprofessors.com/>. Take all of these reviews with a grain of salt. This site tends to suffer from selection bias where only those with either really good or really bad experiences tend to write a review. Despite this, I have found RateMyProfessor to be a useful tool.
- c. <https://cougargrades.io/>. On this site, you can see historical grade data for all classes at UH. This can help give you an insight about a certain professor’s class and potentially how difficult it is.
- d. <https://www.reddit.com/r/UniversityOfHouston/>. This subreddit has posts about every class at UH for the most part. You can search it for class/professor reviews or questions people have asked about them. I have used this subreddit for my class selections more than the other two.
- e. Faculty/Course Evaluation section on AccessUH. This is a relatively unknown resource, but provides a lot of great data. I highly recommend taking a look here for any classes you are thinking about taking.

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7. “How do I get an engineering internship?”

- a. Getting an internship can be difficult. It is impossible to guarantee you will get one for any given semester/summer, but there are some things you can do to maximize your chances.
- b. Most importantly, have a great looking resume. For engineering, a simple and easy-to-read design is better than a complex one. Make sure that you have no spelling/grammar mistakes and have listed all of your relevant skills, experience, and awards. Also, have someone else take a look at your resume to check for any mistakes. You could also post your resume on: <https://www.reddit.com/r/resumes/> to get a review from someone who does not know you personally. I recommend limiting your resume to one page. Finally, make sure you tailor your resume for the position you are applying to. Many automated resume checkers will deny your application before a person ever sees it if you do not meet enough of the keywords given in the application.
- c. Another important thing is to have a good LinkedIn page. I have had a good amount of recruiters reach out to me from there, so it definitely is useful. It also gives you extra space to expand upon the things in your resume.
- d. Make sure you attend every career fair you can. This is one of the better ways at getting your foot in the door because you are able to meet recruiters face-to-face. If you are a freshman, many companies will unfortunately not be interested in hiring you. However, you should still attend the career fair because it is great practice. You do not want to be attending a career fair for the first time as a junior or senior and not know what to expect. Going to a career fair only takes a few hours and will net you far better results than blindly applying to jobs on career websites.
- e. Lastly, try to make connections with professors, other students, and anyone else you meet in your field. Some of the best internship opportunities come from people you personally know. Having a reference from someone already inside a company can help a ton in getting an interview.

8. “What do I do if I am not good at math? Can I complete an engineering degree?”

- a. You can complete an engineering degree regardless of how good you are at math as long as you are willing to put in the time necessary to learn and understand the math used in your classes. However, if you do not like math, then you will have a hard-time finishing an engineering degree. All of your engineering course will be math-heavy, so it is extremely important that you at least somewhat enjoy math if you are going to complete an engineering degree. Being good at math is far less important than enjoying math.

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9. “Where can I find information about my engineering degree?”

- a. This page on the UH website has all the information you could need about your specific major: <https://www.egr.uh.edu/academics/undergraduate-programs>.
- b. This subreddit has over a decade of posts that you can search: <https://www.reddit.com/r/UniversityOfHouston/>. It is most useful for looking up specific professors, courses, or general questions about your major.
- c. This subreddit can be useful for general engineering questions/advice, but will not be useful for UH specific questions: <https://www.reddit.com/r/EngineeringStudents/>.
- d. If you have any questions about a specific situation you are in, then you should meet with your advisor.

10. “What is the best online circuit simulator?”

- a. I highly recommend <https://www.multisim.com/>, but there are other great ones you can find online.

11. “What are the best clubs for an engineering major?”

- a. This depends on your major. I highly recommend you join the club that best matches your major. This is not an exhaustive list, but these are some of the best engineering clubs that myself or others have found useful.
- b. Electrical/Computer majors: <https://ieee.ece.uh.edu/>.
- c. Mechanical majors: <https://www.uhasme.com/>.
- d. Chemical majors: <https://aiche.egr.uh.edu/>.
- e. Civil majors: <https://asce.egr.uh.edu/>.
- f. Biomedical majors: <https://linktr.ee/uhbmes>.
- g. Industrial majors: <https://iiseuh.wordpress.com/>.
- h. Petroleum majors: <https://www.uhspe.com/>.
- i. Any engineering majors: <https://aiaa-uh.com/> and <https://www.uhcougarracing.com/>.