College of Engineering

Department of Mechanical and Aerospace Engineering

Bachelor of Science in Mechanical Engineering

1st Year

Fall Semester	Spring Semester	Summer (Optional)
MAE 1107	MAE 1140	
ENGR 1101 OR UNIV 1131	MAE 2360	
MATH 1426	MATH 2425	
CHEM 1465	PHYS 1443	
ENGL 1301	MAE 1351	
U.S. HISTORY ELECTIVE 1		

HOURS 31

2nd Year

Fall Semester	Spring Semester	Summer (Optional)
MAE 1312	MAE 2312	
MATH 3330	MAE 2323	
MATH 2326	MAE 3324	
PHYS 1444	MAE 3310	
MAE 2381	MAE 3360	
	EE 2320	

HOURS 34

3rd Year

Fall Semester	Spring Semester	Summer (Optional)
MAE 3242	MAE 3344	
MAE 3318	MAE 4344	
MAE 3181	MAE 3314	
MAE 3313	MAE 3319	
MAE 3311	POLS 2311	
MAE 3185	COMS 2302	
U.S. HISTORY ELECTIVE 2		

HOURS 34

4th Year

Fall Semester	Spring Semester
TECHNICAL ELECTIVE 1	TECHNICAL ELECTIVE 2
MAE 4287	TECHNICAL ELECTIVE 3
MAE 4342	MAE 4188
MAE 3183	MAE 4310
ECON 2305 OR IE 2308	CREATIVE ARTS ELECTIVE
POLS 2312	LANG/PHIL/CULT ELECTIVE

HOURS 31
TOTAL DEGREE HOURS 130

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UNIVERSITY OF TEXAS ARLINGTON

Revised 3-14-23

DESIGN YOUR JOURNEY

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	Beginning the Journey	Trailblazing the Path

EDUCATE	• Familiarize yourself with your degree plan.
	• Meet with your advisor once a semester to ensure you're on track for graduation.
	• If you are a freshman student, transition from freshman advising to department advising*.
	  ◦ Freshman advising
	  ◦ Department advising
	• Complete UNIV 1131 or ENGR 1101 to learn about all of the resources available to you & to prepare you to succeed in your major.
		• Complete your pre-professional courses and get admitted to the professional program.
		• Consider pursuing a certificate.
		• Use your flowchart to plan what classes you you want to take in the future. Use the catalog to find course descriptions.
		• Consider adding a minor.

ENGAGE	• Participate in the Dean's Challenge. • Join a College of Engineering professional organization (ASME, AIAA, AHS, etc.) so you can get to know your peers, begin to make industry connections, pursue your interests, and have fun! • Join a UTA club or a general engineering organization (SWE, SHPE, NSBE) so you can get involved on campus and meet new people. • Attend the Explore MAE Event to get to know your MAE professors and tour MAE research labs. • Apply to join the Honors College.	• Join AeroMavs, the Formula SAE Race Car Team, or the MARS Rover Team • Participate in the 3D Printed Aircraft Competition. • Contact the Center for Service Learning for volunteer opportunities. • Look into becoming an SI leader or tutor, or working at the IDEAS Center • Participate in the Big Event. • Interested in getting your PhD? Look into the McNair Scholars program.
EXCEL	• Attend the College-to-Career orientation session with Career Services and fill out the career fields of interest forms. • Speak with Career Services about on-campus and summer job opportunities. • Create a résumé so you can work on building it up before you get to graduation. • Create an account on Handshake.	• Carole Coleman is the internship and co-op coordinator for the College of Engineering. Contact her for information on these once you've met the requirements. • Attend a College of Engineering Speed Mentoring event. • Attend the College of Engineering Career Fair to network and learn more about companies. It's a great way to find employment and internship opportunities every semester. • Join MavMentors.

*You can ask your freshman advisor about what these requirements are

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Destination Graduation

- Interested in a master's degree? Ask your advisor about Fast Track program.
- Send the latest transcript for any courses taken at a community college.
- Apply to graduate through MyMav.
- If you're an international student and need a ful-time waiver or OPT form signed, you must see an advisor to have it approved.

- Present at Innovation Day.
- Ask a professor about getting involved with the work going on in their labs.
- Attend a conference for the field that you are wanting to work in.
- Take on a leadership position in a student organization.

- Finalize your résumé so you are ready to hand it out at the job fairs.
- Setup a mock interview with the Career Development Center.
- Attend the All-Majors Job Fair.
- Complete The Job Search course on Canvas.
- Talk to faculty member about the field that you want to go into and what you can do to be a competitive candidate.
- Attend the MAE Senior Banquet!

MAVERICK ADVANTAGE

Be Bold. Be Ambitious. Set Yourself Apart.

CAREER DEVELOPMENT

- Internships/Co-Ops
- College of Engineering Career Fair
- College of Engineering Speed Mentoring
- All Majors Job Fair
- MavMentors

GLOBAL ENGAGEMENT

- Global Grounds
- Global Mavericks Program
- Study Abroad

LEADERSHIP DEVELOPMENT

- UTA Organizations
- College of Engineering Organizations
- Leadership Minor
- Student Governance
- Fraternity & Sorority Life

COMMUNITY ENGAGEMENT

- Dean's Challenge
- The Big Event
- UTA Volunteers

UNDERGRADUATE RESEARCH

- Innovation Day
- McNair Scholars
- Get Involved With Our Research Labs

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FIND YOUR CAREER

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What career options do I have with this major?

- Power generation
- Renewable energy
- Biomedical
- Electronics cooling and air conditioning
- Automotive
- Aerospace
- Manufacturing
- Automation and robotics

Workforce Skills

- Critical Thinking: Analyze issues, make decisions, and overcome problems by using sound reasoning before forming a strategy, decision, or opinion.
- Professionalism: Display effective work habits, high integrity, and ethical behavior. Possess the ability to demonstrate skills confidently and apply talents to achieve professional success.
- Teamwork/Collaboration: Work within a team and foster collaborative relationships with peers and supervisors. Use interpersonal skills to demonstrate respect and dignity for others while working toward a common goal.

Career Readiness

- Skills in applying the engineering design process to create new products that perform safely and cost-effectively.
- Skills in hands-on experimentation and computer modeling.
- Skills in analyzing and interpreting data obtained through experiments and computer modeling.
- Verbal, written, and graphical skills for communicating technological information and ideas.
- Problem-solving skills applying principles of engineering, math and science to complex problems.

Take Action

- Explore workforce skill development through on and off-campus activities; engage with the UTA Career Development Center at uta.edu/careers
- Meet with a career consultant
- Network with employers
- Discover internships and co-ops
- Apply for on-campus employment
- Join Handshake, our career services platform
- Participate in career development programs
- In addition, all students must complete Capstone design projects: Mechanical engineering majors working in teams design a machine, device, or component—such as a robot, an air conditioner, a solar stove, a personal assistive device, etc.—and usually also build a prototype of their design

Visit **uta.edu/student-success/major_maps** for the latest version of this major map.

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