

College of Engineering

Department of Mechanical and Aerospace Engineering

Bachelor of Science in Aerospace Engineering

1st Year

Fall Semester

UNIV 1131 OR ENGR 1101 MAE 1106 MATH 1426 CHEM 1465 ENGL 1301 U.S. HISTORY ELECTIVE 1 **Spring Semester**

MAE 1140 MAE 2360 MATH 2425 PHYS 1443 MAE 1351 **Summer (Optional)**

2nd Year

Fall Semester

MATH 3330 MAE 1312 MATH 2326 PHYS 1444 MAE 2381 **Spring Semester**

MAE 2312 MAE 2323 MAE 2315 MAE 3309 MAE 3360 EE 2320 **HOURS 31**

Summer (Optional)

3rd Year

Fall Semester

MAE 3324 MAE 3315 MAE 3181 MAE 3302 MAE 3303 MAE 3185 **Spring Semester**

MAE 3304 MAE 4314 MAE 3182 MAE 3306 MAE 3405

U.S History Elective 2

HOURS 34

Summer (Optional)

HOURS 31

4th Year

Fall Semester

TECHNICAL ELECTIVE 1 MAE 4321 MAE 4350 COMS 2302 ECON 2305 OR IE 2308 POLS 2311 **Spring Semester**

TECHNICAL ELECTIVE 2
MAE 4310
MAE 4151
LANG/PHIL/CULT ELECTIVE
CREATIVE ARTS ELECTIVE
POLS 2312

HOURS 34

TOTAL DEGREE HOURS 130





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Beginning the Journey

- 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.

Trailblazing the Path

- 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.

- 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.
- 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



- Interested in a master's degree? Ask your advisor about Fast Track programs.
- 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 want 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!







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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What career options do I have with this major?

 Aerospace industry: dealing with all aspects of developing aircraft and spacecraft

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

- Problem-solving skills applying principles of engineering, math, and science to complex problems.
- 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.

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 a Capstone project: Aerospace engineering majors conceptually design a complete flight vehicle, integrating aerodynamics, performance, structures, flight dynamics, and economic considerations

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

