

# **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)** 

HOURS

31

# 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 Summer (Optional)

**HOURS** 

34

# 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

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

**SENIOR HOURS** 34

TOTAL HOURS 130

# College of Engineering

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# **College of Engineering**

# **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

- Participate in the Dean's Challenge.

professors and tour MAE research labs.

Apply to join the Honors College.

interests, and have fun!

and meet new people

- Complete UNIV 1131 or ENGR 1101 to learn about all of the resources available to you & prepare you to succeed in your major.

- Join a College of Engineerging professional organization

(ASME, AIAA, AHS etc.) so you can get to know your

peers, begin to make industry connections, pursue your

- Join a UTA club or a general engineering organization

(SWE, SHPE, NSBE) so you can get involved on campus

- Attend the Explore MAE Event to get to know your MAE

# **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 want to take in the future. Use the catalog to find course descriptions.

- Join AeroMays, the Formula SAE Race Car Team, or the

- Look into becoming an SI leader or tutor, or working at the

- Participate in the 3D Printed Aircraft Competition.

- Contact the Center for Service Learning for volunteer

- Interested in getting your PhD? Look into the McNair

- Consider adding a minor.

MARS Rover Team.

**IDEAS Center** 

Scholars Program.

- Participate in the Big Event.

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# **Destination Graduation**

- 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 full-time waiver or OPT form signed, you must see an advisor to have it approved.

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- Present at Innovation Day.
- Ask a professor about getting involved with the work going

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# LEADERSHIP DEVELOPMENT

**MAVERICK ADVANTAGE** 

Be Bold. Be Ambitious. Set Yourself Apart.

**CAREER DEVELOPMENT** 

- College of Engineering Speed Mentoring

**GLOBAL ENGAGEMENT** 

- College of Engineering Career Fair

- Internships/Co-Ops

- All Majors Job Fair

- Global Grounds

- Study Abroad

- Global Mavericks Program

- MavMentors

- 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

- Attend a conference for the field that you want to work in.
- Take on a leadership position in a student organization.

- Attend the College-to-Career orientation session with Career Services and fill out the career fields of interest
- Speak with Career Services about on-campus and summer job opportunities.
- Create a resume so you can work on building it up before you get to graduation.
- Create an account on Handshake.

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- 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 requirments.
- 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 opprotunities every semester.
- Join MavMentors.



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



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<sup>\*</sup> You can ask your freshman advisor about what these requirments are



# College of Engineering

# 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

# **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/majormaps for the latest version of this major map.

