Materials Science and Engineering

Rebecca Brown, Academic Advisor

NSC NEW STUDENT CONFERENCE

Rebecca Brown, Academic Advisor, MSEN

My name is Rebecca Brown and I am your Academic Advisor. I attended the University of Kansas and earned a Bachelor of Architecture degree and worked as a paralegal for many years. I then went to Sam Houston State University and earned a Master of Arts degree in Higher Education Administration with a focus on Student Affairs and Academic Advising. Before coming to Texas A & M University, I worked in student affairs at Rice Business. I have one human child and one fur baby. I love camping, road trips, hiking, bird watching, weaving and crocheting. I look forward to getting to know you!

Who are we?

MATERIAL SCIENCE AND ENGINEERING
Undergraduate Program Office

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Head & Chevron Professor I
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Undergraduate Program Director
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Dr. Kadri Can Atli
Assistant Undergraduate
Program Director
Office: 300F RDMC
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Rebecca Brown
Undergraduate Academic Advisor
Office: 240 RDMC
Email: rebecca.brown@tamu.edu

Who are we?

MSEN Curriculum Overview

- 128 total credit hours
- 21 hours UCC electives (including International Diversity and Cultural Discourse)
- 31 hours of general engineering
- 58 hours of MSEN core
- 9 hours of Technical Electives (MSEN courses only)
- 9 hours of Specialty Electives (can be MSEN or outside MSEN)

UCC Electives (visit UCC page in UG Catalog)

- **Communications (6 hrs):** Composition & rhetoric and Professional Writing or Professional Communication
- **Mathematics (14 hrs):** Calc 1, 2, 3; Math Methods for MSEN
- **Life and Physical Science (14 hrs):** Chem 1, 2; Physics 1, 2
- **Language Philosophy & Culture (3 hrs)**
- **Creative Arts (3 hrs)**
- **Social and Behavioral Sciences (3 hrs)**
- **Citizenship (12 hrs):** American History (6 hrs); Am. Govt (3 hrs); Texas Govt (3 hrs)
- **International Diversity and Cultural Discourse (6 hrs)**
- **Foreign Language (8 hrs):** Complete 2 college semesters of same foreign language

Transferring Courses to Texas A&M University

- All official transcripts should be sent to Texas A&M University via Aggie One Stop - can be digital (preferred) via SPEEDE, Parchment, or National Student Clearinghouse or via mail.
- Transferred courses have been reviewed by Admissions.
- Academic Advisor will review transcript again and request syllabi for equivalency review.
- Courses that do not meet transfer requirements will have to be repeated.

MSEN Curriculum by Year

First Year in Major
- Calc III
- Chemistry II
- Physics II
- Fundamentals of MSEN
- Thermodynamics
- Soft Matter
- Structure of Materials
- Unified Materials Lab 1
- Communicating MSEN
- Materials in Society (current research)
- Seminar (career paths)

Second Year in Major
- Unified Materials Lab II
- Kinetics of Materials
- Deformation and Failure Mechanics
- Properties Functional Materials
- MATH 307
- Numerical Methods for MSEN
- Materials Characterization
- Technical Elective
- Specialty Elective

Third Year in Major
- Design and Analysis of Materials Experiments
- Capstone
- Materials Processing
- Technical Electives
- Specialty Electives

Degree Planning Tips

- MSEN core classes are offered in both Fall and Spring except:
  - MSEN 281 (spring only)
  - MSEN 401 (fall only)
  - MSEN 402 (spring only; consecutively after MSEN 401)
- MSEN electives are fall or spring
- MSEN electives in summer are MSEN 484 Internship and MSEN 491 Research

Degree Planning Tips (cont.)

- We do not waive any prerequisites.
- You must earn a grade of C or better in all math, science and engineering classes. Failure to earn a C or better means you will have to retake the course.
- Consider whether adding a minor or certificate will be beneficial.
- Use your degree plan as a graduation timeline
- Degree Planner should be created in first semester
  - Must include all electives
  - Must include classes you plan to transfer
  - Must not include prereq issues

ENGR[x]: MSEN 399

ENGRx, also known as High Impact Experience, is a program that was created to help Aggie engineers excel in areas other than education. ENGR[x] is a non-credit program that focuses on leadership, innovation, service and knowledge.

The method of fulfilling this requirement is determined by the major department.

ENGR[x]: MSEN 399

- Internship or Co-op Experience
- Bachelor's+ Program
- Research
- AggiE Challenge
- Leadership in student *engineering* organizations
- Business Immersion for Engineers
- TAMU minor or certificate programs
- Study Abroad

Minors & Certificates

Minors (visit University Approved Minors webpage for full list)

- Biomedical Engineering
- Engineering Project Management
- Business
- Math
- Chemistry
- Entrepreneurship

Certificates (visit University Approved Certificate Programs webpage for full list)

- Corrosion Science Certificate
- Polymers Specialty Certificate

Minors & Certificates

Minors (visit University Approved Minors webpage for full list)

- Biomedical Engineering
- Engineering Project Management
- Business
- Math
- Chemistry
- Entrepreneurship

Certificates (visit University Approved Certificate Programs webpage for full list)

- Corrosion Science Certificate
- Polymers Specialty Certificate

UG Research

Ways To Do Undergraduate Research

- Research course credit (291/491 courses)
- Join a research lab, team, or institute
- Research Technician positions
- Summer Research Experience for Undergrads
- Internships
- Design a unique project under faculty mentorship

Talk w/ research advisor → Do some self-study → Complete a syllabus / enroll in 291/491

Technical Electives (MSEN Elective Only) (9 hours)

Fall Electives
MSEN 426 Polymer Laboratories
MSEN 440 Materials Electrochemistry & Corrosion
MSEN 448 Failure Analysis in Materials Science
MSEN 470 Computational MSEN
MSEN 489 SPTP: Advanced Electronic Materials
MSEN 489 SPTP: Quantum Mechanics for MSEN

Spring Electives
MSEN 420 Polymer Science
MSEN 430 Nanomaterials Science
MSEN 444 Corrosion and Electrochemistry Lab
MSEN 446 Corrosion Prevention and Control
MSEN 458 Fundamentals of Ceramics
MSEN 489 SPTP: Field Theories
MSEN 489 SPTP: Materials Design Studio
MSEN 489 SPTP: Flow and Fracture in Polymers

Specialty Electives (9 hours)

Pre-approved:
MSEN 300-499; AERO 300-499; BAEN 300-499; BMEN 300-499; CHEN 300-499; CVEN 300-499; CSCE 110, CSCE 300-499; ECEN 300-499; ENGR 300-499; ISEN 300-499; MEEN 221, MEEN 300-499; NUEN 300-499; BIOL 300-499; CHEM 220, CHEM 227, CHEM 228, CHEM 300-499; MATH 300-499; PHYS 222, PHYS 300-499; STAT 211, STAT 212, STAT 300-499; MGMT 309; MKTG 409; FINC 409

Students may request other level 300 and above courses to count as Specialty Electives. To request approval, send an email to msen-ug-advising@tamu.edu with course number and name, and information that clearly links the course to the student's intended application of the field of materials science and engineering. Student should also link the course to MSEN's ABET Student Outcomes which can be found on the MSEN Accreditation webpage.

Academic Expectation

Academic Expectations

Attendance

Student Rule 7: Students must attend ALL CLASS SESSIONS.

Work Must be Turned in on Time

Late work is only accepted for excused absence or per Disability accommodations

Academic Expectations

Grades

- Must have grades of C or better in all engineering, physics, math, and chemistry classes.
- Must have overall GPA of 2.0 or higher
- Must have term GPA of 2.0 or higher
- Must pass 75% or more of coursework each semester
- Not repeat course more than twice without successful completion

Academic Probation

Academic Probation:

- Semester or overall GPA less than 2.0
- Below 75% of attempted degree coursework per term completed successfully
- Withdrawing for two terms is considered unsatisfactory completion of attempted coursework of which a student will be put on probation
- Attempt a specific course two times without earning credit towards degree (Q-drop, W, D, F, U)

Academic Monitoring:

- 2.4 cumulative GPA or below

Support and Resources

Academic Resources

- **MSEN Peer Tutoring**
  - Monday through Thursday, 6 to 9pm, RDMC 202
- **Leach Learning Resource Center**
  - Peer Tutoring in Chemistry, Physics and Engineering
  - Make appointment in Navigate
  - Located in ZACH 282L, 282M, 282N and 282P
- **Supplemental Instruction**
  - Peer-led assistance in Chemistry and Physics
  - Located in ZACH 340, 341 and 350
- **Engineering Career Center**
  - Career development, planning and services
  - Located in ZACH 283

Academic Resources

- **Academic Success Center -** 9th floor of Rudder
- **Math Learning Center** – Blocker 249
- **Student Health Services**
  - Beutel Student Health Center: 311 Houston (uhs.tamu.edu)
  - Counseling & Psychological Services - 4th floor of Student Services Building (SSB)
  - TELUS Health Student Support app
- **Disability Resources -** Suite 122 of Student Services Building (SSB)
- **Veterans Support Office -** Memorial Student Center (MSC), Suite 1500
- **Aggie One Stop -** 1st Floor, General Services Complex

Comprehensive list in MSEN Advising Canvas Community!

TELUS Health Student Support App (Health and Wellbeing Resources)

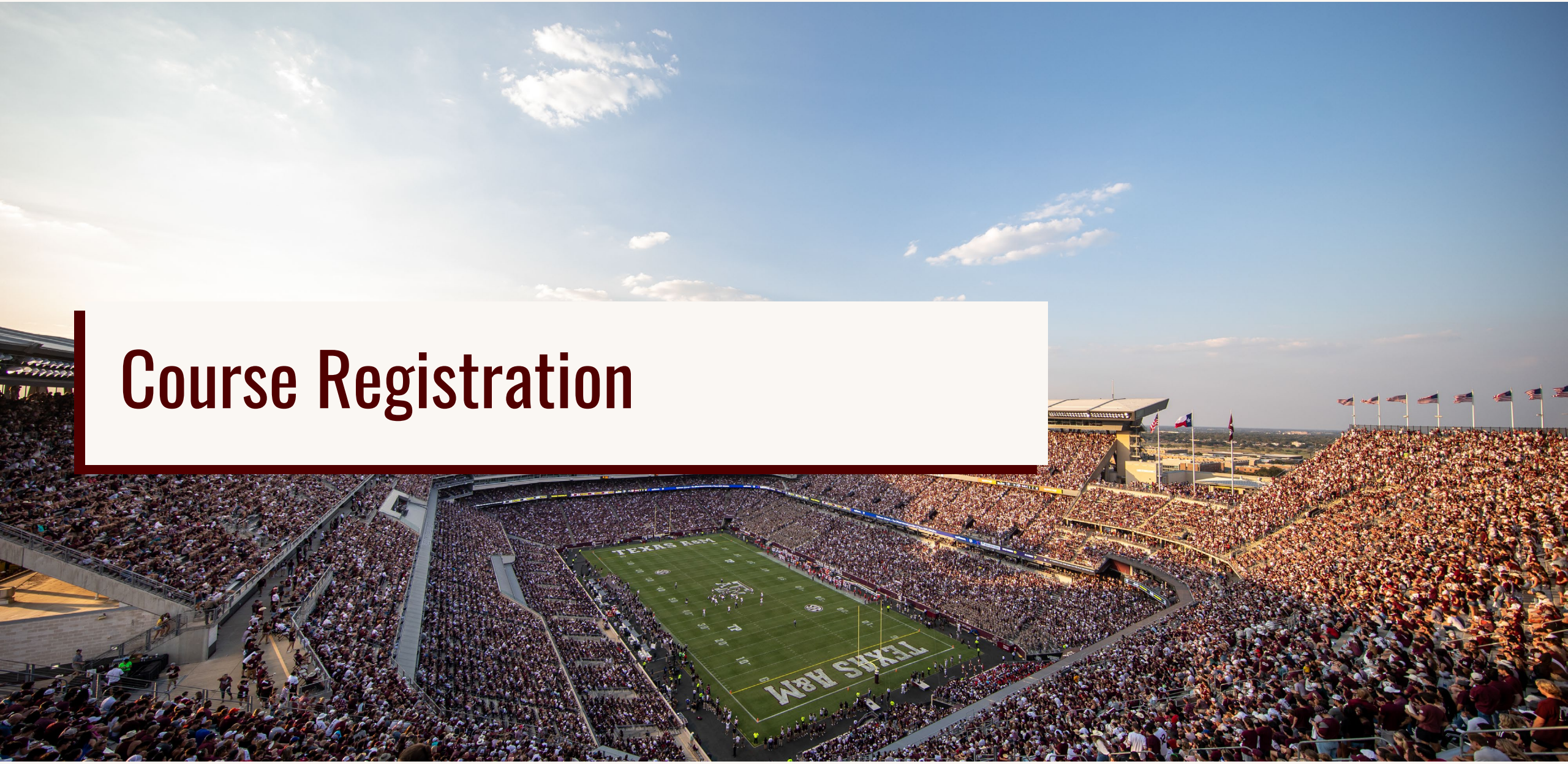
Download the TELUS Health Student Support app
via the **App Store** or **Google Play**.

- Confidential, real-time virtual counseling available 24/7 via chat and phone in multiple languages.
- Scheduled, short-term counseling appointments via telehealth with a professional counselor.
- Extensive on-demand content library.

HELP! Where do I go if I have questions?

- **Financial Aid**
  - Courses Not Counting:
    Academic Advisor **msen-ug-advising@tamu.edu**
  - Amount of Aid:
    Aggie One Stop **https://aggieonestop.tamu.edu/**
- **Account Payment**
  - Aggie One Stop: **https://aggieonestop.tamu.edu/**
- **IT Services**
  - **https://www.it.tamu.edu/services/services-for-you/students.html**

Course Registration



Pre-Registration Tasks

Registration Readiness

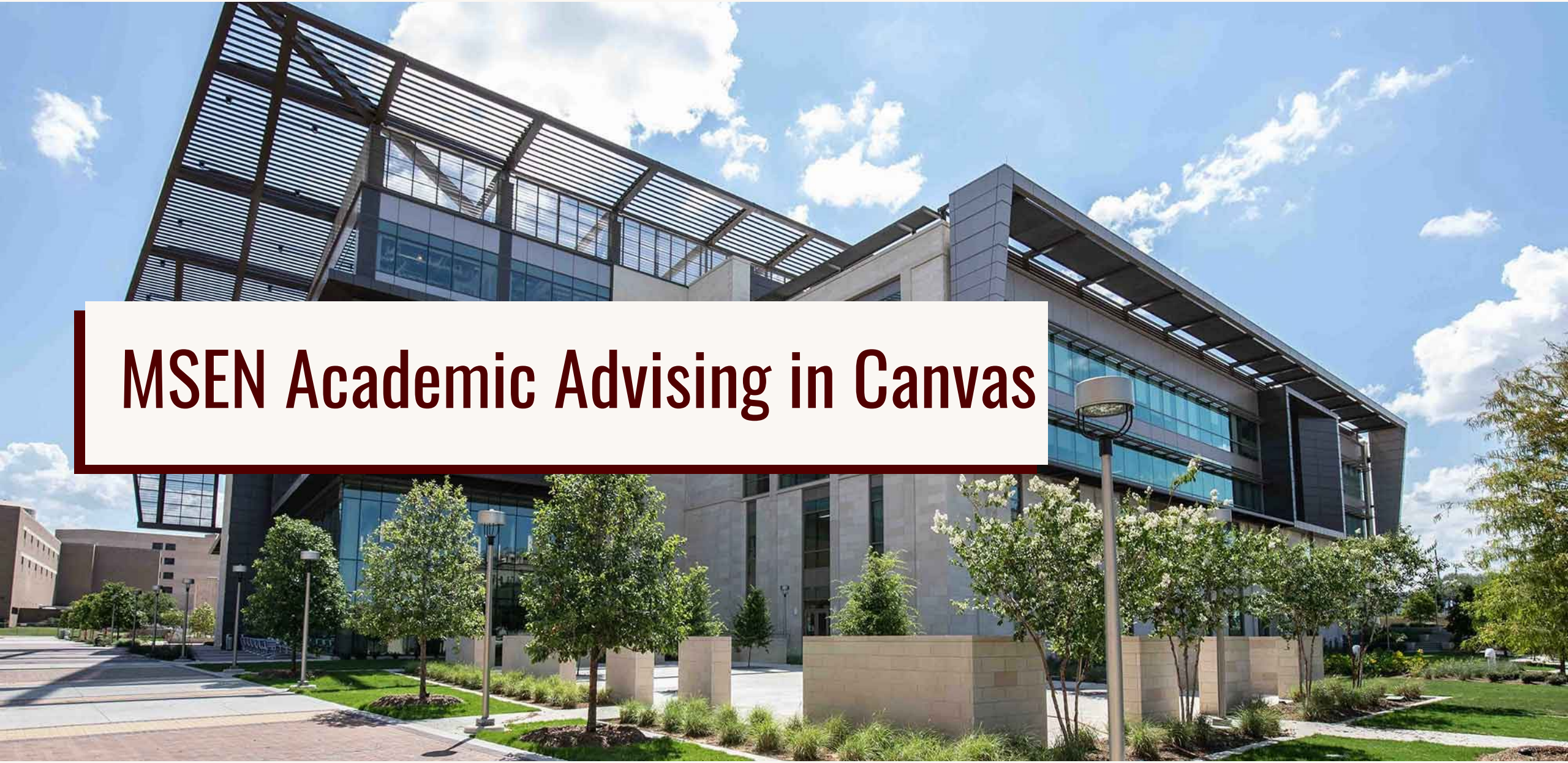
- Check for holds
- Terms of Use
- Lab Safety Acknowledgement
- Location Update

Schedule Builder

- Search for courses by subject, CRN, or attribute
- Check course information for prerequisites & restrictions
- Save to cart and register

Courses for Spring 2026

- MSEN 201 Fundamental Materials Science & Engineering
- MSEN 205 Materials in Society
- MATH 251 Engineering Math 3 (or Calc 3)*
- PHYS 207 Physics 2: Electricity & Magnetism*
- ENGR 102 Engineering Lab 1
- * If these courses are completed, you can take:
  - MSEN 210 Thermodynamics
  - MSEN 260 Structure of Materials
  - CHEM 120 Chemistry 2
  - MSEN 250 Soft Matter



MSEN Academic Advising in Canvas

Thanks & Gig 'em!

Contact Us

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979.256.1311

nsfp@tamu.edu

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