

## Michigan Technological University

### Minor in Aerospace Engineering

Program Code EMAE, Academic Year 2025-2026

College of Engineering

Minimum Credits Required: 18

#### Required Courses: 3-6 Credits

- ME/MEEM 4810 Intro to Aerospace Engineering (3) *Prereqs: (MEEM2150 or ENG2120) and (MEEM3201 or ENG3200) or ME4810*
  - **or** AE2500 Principles of Aerospace Engineering (3) *Prereqs: ENG1102*  
**and** AE2550 Space Environment & Operation (3) *Prereqs: ENG1102 and PH2200*

#### Elective Courses: 12-15 Credits

- AE 3501 Aerospace Systems Engineering Practice *Prereqs: ME2150 and ME2700 and ME2911(C) and AE2500 and AE2550*
- AE 3511 Spacecraft Engineering Practice *Prereqs: AE3501*
- AE 3520 Aerodynamics *Prereqs: AE2500 and MA3160 and (ME2911 or MEEM2911)*
- AE 4540 Aerospace Propulsion *Prereqs: (AE3520 and AE4530) or MEEM3201 or ME3201*
- AE 4550 Spacecraft Thermal Engineering *Prereqs: AE3520 and AE3511*
- AE 4560 Aerospace Materials & Structures *Prereqs: AE2550 and (ME2150 or MEEM2150)*
- AE 4580 Spacecraft Dynamics & Control (SD&C) *Prereqs: AE4570(C) and (MEEM3750 or ME3750)*
- ME/MEEM 4202 Applied Fluid Mech & Heat Transfer (3) *Prereqs: MEEM3201 and (MA3520(c) or MA3521(c) or MA3530(c) or MA3560(c))*
- ME/MEEM 4210 Computational Fluids Eng. (3) *Prereqs: MEEM3201(c)*
- ME/MEEM 4230 Compressible Flow/Gas Dynamics (3) *Prereqs: MEEM3201*
- ME/MEEM 4701 Analytical & Experimental Modal Analysis (4) *Prereqs: MEEM3750*
- ME/MEEM 4720 Space Mechanics (3) *Prereqs: MEEM2700*
  - **or** AE 4570 Space Mechanics *Prereqs: MEEM/ME 2700*
- ME/MEEM 4820 Intro to Aerospace Propulsion (3) *Prereqs: MEEM3201*
- ME/MEEM 5180 Mechanics of Composite Materials (3) *Prereqs: MEEM4901(c) or ENT4950(c)*
- MSE 4430 Composite Materials (3) *Prereqs: MY2100 or MSE2100 or BE2800*
- ME/MEEM 4150 Intermediate Mechanics of Materials (3) *Prereqs: MEEM2150*
- ME/MEEM 4170 Failure of Materials in Mechanics (3) *Prereqs: MEEM3501 or MEEM3400*
- ME/MEEM 4180 Engineering Biomechanics (3) *Prereqs: MEEM2150 and MEEM2700*
- ME/MEEM 4201 Applied Thermodynamics (3) *Prereqs: MEEM3201*
- ME/MEEM 4650 Quality Engineering (3) *Prereqs: MEEM3600(c) and (MA3710 or MA3720 or MA2710 or MA2720)*
- ME/MEEM 4702 Shock and Vibration (3) *Prereqs: (MEEM3911 and MEEM3750) or MEEM4775*
- ME/MEEM 4704 Acoustics and Noise Control (3) *Prereqs: MA2160*
- ME/MEEM 4705 Intro to Robotics and Mechatronics (4) *Prereqs: MEEM3750*
- ME/MEEM 4707 Autonomous Systems (3) *Prereqs: MEEM3750 or MEEM4700 or MEEM4775*
- ME/MEEM 4775 Analysis & Design of Feedback Control Systems (4) *Prereqs: MEEM3750 or EE3160*

\*Minor credit cannot be granted for ME majors for these two courses.

\*\*Requires minor advisor approval of project.