## **Michigan Technological University**

### **Minor in Aerospace Engineering**

Program Code EMAE, Academic Year 2021-22

Department of Mechanical Engineering – Engineering Mechanics

**Total Credits Required: 18** 

# **Required Courses: 10 credits minimum**

| Course                                                    | Credits |
|-----------------------------------------------------------|---------|
| MEEM 2150 Mechanics of Materials OR                       | 0./4    |
| ENG 2120 Statics-Strengths of Materials*                  | 3/4     |
| MEEM 3201 Intro Fluid Mechanics & Heat Transfer <b>OR</b> | _       |
| ENG 3200 Thermodynamics/Fluid Mechanics*                  | 4       |
| MEEM 4810 Intro to Aerospace Engineering                  | 3       |

#### **Elective Courses: 4 credits minimum**

| Course                                             | Credits |
|----------------------------------------------------|---------|
| ENT 4950 Enterprise Project Work V**               | 2       |
| ENT 4960 Enterprise Project Work VI**              | 2       |
| ENT 4961 Enterprise Project Work VII**             | 1       |
| MEEM 4202 Int. Fluid Mech & Heat Transfer          | 3/4     |
| MEEM 4210 Computational Fluids Eng.                | 3       |
| MEEM 4701 Analytical & Experimental Modal Analysis | 4       |
| MEEM 4720 Space Mechanics                          | 3       |
| MEEM 4230 Compressible Flow/Gas Dynamics           | 3       |
| MEEM 4820 Intro to Aerospace Propulsion            | 3       |
| MSE 4430 Composite Materials                       | 3       |
| MEEM 5180 Mechanics of Composite Materials         | 3       |

## Remaining Elective Courses: select remaining credits from the following list

| Course                                            | Credits |
|---------------------------------------------------|---------|
| MEEM 4150 Intermediate Mechanics of Materials     | 3       |
| MEEM 4170 Failure of Materials in Mechanics       | 3       |
| MEEM 4180 Engineering Biomechanics                | 3       |
| MEEM 4201 Applied Thermodynamics                  | 3       |
| MEEM 4630 Human Factors                           | 3       |
| MEEM 4650 Quality Engineering                     | 3       |
| MEEM 4702 Shock and Vibration                     | 3       |
| MEEM 4704 Acoustics and Noise Control             | 3       |
| MEEM 4705 Intro to Robotics and Mechatronics      | 4       |
| MEEM 4707 Autonomous Systems                      | 3       |
| MSE 4120 Material and Process Selection in Design | 3       |

<sup>\*</sup>Minor credit cannot be granted for ME majors for these two courses.

Prerequisite courses can be found in the undergraduate catalog.

<sup>\*\*</sup>Requires minor advisor approval of project.