

# 2023-2024 TTC Catalog - Aircraft Manufacturing (AMF)

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## **AMF 103 - Introduction to Aviation**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall

Summer

This course is designed to introduce the student to the history and background of aviation, the role of the Federal Aviation Administration (FAA) in aviation, the nomenclature of aircraft and safety. (This course is not FAA part 147 approved.)

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **AMF 104 - Basic Aviation Sciences**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall

Summer

This course is designed to equip the student with a basic working knowledge of mathematical concepts used in aircraft construction and design, including basic math and geometric concepts, theory of flight, and simple machines. (This course is not FAA part 147 approved.)

### **Prerequisite**

MAT 033

or

appropriate placement

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **AMF 109 - Aircraft Materials and Hand Tools**

**Lec:** 2.5 **Lab:** 1.5 **Credit:** 3.0

**Course Offered**

Fall  
Summer

This course covers the identification and selection of materials used in aircraft construction, aircraft hardware, use of hand tools including precision measuring tools, and testing methods used in the aerospace industry. (This course is not FAA part 147 approved.)

**Prerequisite**

MAT 033  
or  
appropriate placement

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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**AMF 110 - Corrosion Control and Sealing Applications**

**Lec:** 1.5 **Lab:** 1.5 **Credit:** 2.0

**Course Offered**

Fall  
Summer

This course addresses the selection of corrosion-resistant materials, application of corrosion inhibitors and application of aerospace sealants. (This course is not FAA part 147 approved.)

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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**AMF 116 - Aircraft Fluid Lines**

**Lec:** 1.5 **Lab:** 1.5 **Credit:** 2.0

**Course Offered**

Fall  
Summer

The course covers the identification, selection, fabrication and installation practices of rigid and flexible aircraft fluid line systems, as well as the basic introduction to aircraft hydraulic systems and fluids. (This course is not FAA part 147 approved.)

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **AMF 132 - Aircraft Sheet Metal Assembly**

**Lec:** 2.0 **Lab:** 3.0 **Credit:** 3.0

### **Course Offered**

Spring

This course covers the principles of sheet metal layout, bending, drilling, countersinking, as well as installation and removal of fasteners. (This course is not FAA part 147 approved.)

### **Prerequisite**

MAT 033

or

appropriate placement

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **AMF 137 - Aircraft Composite Structures**

**Lec:** 2.0 **Lab:** 3.0 **Credit:** 3.0

### **Course Offered**

Spring

This course covers the fabrication of aircraft primary and secondary members utilizing composite technology, including the lay-up, bonding, curing, trimming and machining of composite structures. (This course is not FAA part 147 approved.)

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **AMF 142 - Airframe Auxiliary Systems**

**Lec:** 2.0 **Lab:** 0 **Credit:** 2.0

### **Course Offered**

Spring

This course is designed to introduce the student to the various systems that make up the infrastructure of an aircraft, to include cabin atmospheric control systems, fire protection, cockpit instrumentation and avionic systems, and warning systems. (This course is not FAA part 147 approved.)

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **AMF 147 - Aviation Electrical Systems**

**Lec:** 2.5 **Lab:** 1.5 **Credit:** 3.0

### **Course Offered**

Spring

This course covers the fundamentals of electricity including DC and AC circuits, design and installation practices of aircraft electrical systems including circuit components, power distribution systems, and circuit protection devices. (This course is not FAA part 147 approved.)

### **Prerequisite**

MAT 033

or

appropriate placement

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **AMF 152 - Aircraft Flight Control Systems**

**Lec:** 2.0 **Lab:** 0 **Credit:** 2.0

### **Course Offered**

Spring

This course covers the design and rigging methods of aircraft primary and secondary flight control systems. (This course is not FAA part 147 approved.)

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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