

# APPLIED TECHNOLOGY

## Associate of Applied Science (AAS)

This is a guide based on the 2025-2026 Undergraduate Bulletin and is subject to change. The time it takes to earn a degree will vary based on several factors such as dual enrollment, remediation, and summer enrollment. Students will meet with an academic advisor each semester and use Degree Works to monitor their individual progress.

### CURRICULUM CHECKLIST

#### 60-63 hour program

- \_\_\_ EN100 English Composition I (3)
- \_\_\_ IM300 Technical Communications (3)
- \_\_\_ IM301 Industrial Safety Supervision (3)
- \_\_\_ IM311 Statistical Process Control (3)
- \_\_\_ MN220 Engineering Economic Analysis (3)

#### Choose 3 hours:

- \_\_\_ PS103 U.S. Political Systems (3)
- \_\_\_ US105 American History I (3)

#### Choose 3 hours:

- \_\_\_ SC105 Fundamentals of Oral Communications (3)
- \_\_\_ SC107 Online Oral Presentations (3)

#### Choose 3-5 hours:

- \_\_\_ MA115 Precalculus A with Integrated Review (5)
- \_\_\_ MA116 Precalculus A (3)

#### Choose 3 hours:

- \_\_\_ CM260 Computer Methods of Const Managers (3)
- \_\_\_ CS101 Computer Science (3)
- \_\_\_ MN260 Technical Computer Programming (3)

#### Physical Science- Choose 8-10 hours of the following: \*\*

- \_\_\_ CH180 Chemistry in Our World (3)
- \_\_\_ CH181 Basic Principles of Chemistry (3)
- \_\_\_ CH184 General Chemistry I Lab (1)
- \_\_\_ GO110 Physical Geology (3)
- \_\_\_ PH106 Physical Concepts (3)
- \_\_\_ PH107 Physical Concepts Lab (1)
- \_\_\_ PH120 Introductory Physics I (5)
- \_\_\_ PH121 Introductory Physics II (5)
- \_\_\_ PH230 General Physics I (5)
- \_\_\_ PH231 General Physics II (5)

\*\* Many programs require the 5-hour lab classes. Please work with an advisor to determine which are appropriate for you.

#### CHOOSE ONE TRACK – 23-24 Hours

##### CUSTOMIZED:

- \_\_\_ Technical Elective Courses as Approved by the Advisor and Department (24)

##### AIR TRAFFIC CONTROL:

- \_\_\_ AV101 Introduction to Air Traffic Control (3)
- \_\_\_ AV102 Terminal and En-Route Procedures (3)
- \_\_\_ AV103 Air Traffic Control Regulations (3)
- \_\_\_ AV104 Basic Air Traffic Control Procedures (3)
- \_\_\_ AV201 Instrument Flight Rules Procedures for Air Traffic Control (3)
- \_\_\_ AV305 Tower Lab (3)
- \_\_\_ AV307 En-Route Radar (3)
- \_\_\_ AV308 Traffic Control (TRACON) Radar (3)

##### CONSTRUCTION:

- \_\_\_ CM126 Computer-Aided Architectural Drafting (3)
- \_\_\_ CM143 Construction Methods & Materials I (3)
- \_\_\_ CM226 Residential Architectural Drafting & Design (3)
- \_\_\_ CM243 Construction Methods and Materials II (3)
- \_\_\_ CM260 Computer Methods of Construction Managers (3)
- \_\_\_ CM310 Construction Building Codes (3)
- \_\_\_ CM320 Construction Cost Estimating (3)
- \_\_\_ CM330 Construction Planning and Scheduling (3)

##### ELECTRICAL CONTROLS:

- \_\_\_ ET160 Basic Electrical Circuits (3)
- \_\_\_ ET164 AC Principles & Circuits (3)
- \_\_\_ ET245 Logic Circuits (3)
- \_\_\_ ET304 Programmable Logic Controllers (3)
- \_\_\_ MA117 Precalculus B (3)
- \_\_\_ MA140 Analytic Geometry & Calculus I (5)
- \_\_\_ TN255 Microcomputer Maintenance (3)

##### INDUSTRIAL SUPERVISION:

- \_\_\_ IM309 Science, Technology, and Society (3)
- \_\_\_ IM313 Facilities Planning (3)
- \_\_\_ IM411 Total Quality Assurance (3)
- \_\_\_ IM417 Manufacturing Resource Analysis (3)
- \_\_\_ IM419 Industrial Supervision (3)
- \_\_\_ MN120 Fundamentals of Engineering Design Processes (3)
- \_\_\_ MN170 Industrial Materials & Testing (3)
- \_\_\_ MN203 Industrial Materials & Process I (3)

#### MACHINING & MANUFACTURING:

- \_\_\_ ET160 Basic Electrical Circuits (3)
- \_\_\_ MA117 Precalculus B (3)
- \_\_\_ MA140 Analytic Geometry & Calculus I (5)
- \_\_\_ MN120 Fundamentals of Engineering Design Processes (3)
- \_\_\_ MN170 Industrial Materials & Testing (3)
- \_\_\_ MN203 Industrial Materials & Processes I (3)
- \_\_\_ MN221 Solid Modeling & Rapid Prototyping (3)

#### NETWORKING:

- \_\_\_ ET160 Basic Electrical Circuits (3)
- \_\_\_ ET245 Logic Circuits (3)
- \_\_\_ TN255 Microcomputer Maintenance & Troubleshooting (3)
- \_\_\_ TN275 Introduction to Networks (3)
- \_\_\_ TN295 Firewall Management (3)
- \_\_\_ TN375 Routing and Switching Essentials (3)
- \_\_\_ TN395 Virtual Infrastructure Management (3)
- \_\_\_ TN435 Network Security (3)

#### UNMANNED AIRCRAFT SYSTEMS

- \_\_\_ ET160 Basic Electrical Circuits (3)
- \_\_\_ ET245 Digital Systems (3)
- \_\_\_ ET380 Vision & Sensor Systems (3)
- \_\_\_ ET381 Fundamentals of Aviation in UAS (3)
- \_\_\_ ET382 UAS Fundamentals (3)
- \_\_\_ ET385 UAS Mission Planning (3)
- \_\_\_ MN120 Fundamentals of Engineering Design Processes (3)
- \_\_\_ TN255 Microcomputer Maintenance & Troubleshooting (3)

### SAMPLE TWO-YEAR PLAN

	Fall Semester		Spring Semester	
	Course #	Hrs	Course #	Hrs
FIRST YEAR	EN100	3	CM260/CS101/MN260	3
	MA115/116	3-5	IM301	3
	Physical Science Lab	5	Physical Science	3-5
	Track Course 1	3	Track Course 2	3
			Track Course 3	3
	<b>Total</b>	<b>14-16</b>	<b>Total</b>	<b>15-17</b>
SECOND YEAR	IM311	3	IM300	3
	MN220	3	PS103/US105	3
	Track Course 4	3	SC105/SC107	3
	Track Course 5	3	Track Course 7	3
	Track Course 6	3	Track Course 8	3
	<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>

\*Many major courses are on a set rotation and dependent on when prerequisites are completed. The actual semester a course is taken may vary based on the rotation.

Degree requirements for all students: a minimum of 60 credit hours. Refer to the Undergraduate Bulletin or Degree Works for additional graduation requirements (i.e., minimum GPA and course work) for your program of study.



Revised  
6/12/2025

# 2025-2026 degree map



**SOUTHEAST MISSOURI**  
**STATE UNIVERSITY · 1873®**

CENTER FOR ACADEMIC ADVISING / [semo.edu/advising](https://semo.edu/advising)  
OFFICE OF ADMISSIONS / (573) 651-2590 / [admissions@semo.edu](mailto:admissions@semo.edu)