

# AUTONOMOUS SYSTEMS CERTIFICATE

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Division: Technology and Engineering

## Requirements

PROGRAM CODE: 2C41372

The **Autonomous Systems Certificate** is designed to develop the skills necessary to provide a comprehensive understanding of autonomous systems. Students seeking a certificate in Autonomous Systems may pursue careers in industries such as manufacturing, defense, agriculture, surveying, medical, automotive, power, communications and many more. In order to be well prepared for this technical field, students should complete as many courses as possible that relate to future job and career prospects. This certificate requires a total of 13-15 units.

Code	Title	Units
<b>Required Courses (13-15 units):</b>		<b>13-15</b>
TECH 081 F	Technical Mathematics I	3
TECH 108 F	Manufacturing Processes	3
	or TECH 127 F Industrial Safety	
TECH 131 F	Basic Electricity and Basic Electronics	2
TECH 132 F	Basics of Electric Motor Controls	2
TECH 150 F	Basic Drone Piloting	2
	or TECH 151 F Applied Drone Piloting	
TECH 155 F	Applied Drone Lab	2
<b>Total Units</b>		<b>13-15</b>

## Program Student Learning Outcomes

**Outcome 1:** Design and conduct experiments, as well as analyze and interpret data related to Unmanned Aircraft System (UAS) air-frame assembly, external pilot controls, motor and power systems, autopilot and sensors, ground control station software, loop simulation, tune autopilot, video payload installation, and autopilot telemetry modem.

**Outcome 2:** Analyze and interpret data and compare results with theoretical calculations.