

# UNMANNED AIRCRAFT SYSTEMS, CERTIFICATE OF SPECIALIZATION

Not Financial Aid Eligible  
Banner Code: 1\_CM\_UMA  
Control Number: 38209

The program curriculum allows students to explore the entirety of unmanned aircraft systems. Courses highlight specific characteristics of different aircraft, how they are built and fundamentals of control and propulsion systems. Students will explore how unmanned aircraft systems integrate into the larger aviation systems, including safety policies, regulations and automation procedures.

The program can be tailored to meet the needs of individual students without any prior unmanned aircraft systems operating experience.

Upon completion of the program students will be prepared to become commercial Unmanned Aircraft Systems pilots, technicians and programmers in various industry sectors in a broad range of applications.

## Program Outcomes

1. Students who complete the Unmanned Aircraft Systems Certificate of Specialization will be capable of deploying and piloting unmanned aircraft systems, managing flight control systems, collecting and analyzing telemetry data, programming autonomous flight missions and securely communicating with a variety of different aircraft flying different types of missions.

## Certificate Requirements

Orange Coast College offers two types of certificate awards in career programs designed to prepare the graduate to enter a particular field of employment. At least 3 units in an advanced course from the certificate must be completed at OCC.

1. **Certificate of Achievement** - 8 units or more in a state-approved program. Certificates of Achievement are not automatically awarded. A petition must be filed in Enrollment Services or online at the beginning of the semester in which the student will be completing his or her final requirements. The petitioning periods are listed in the Graduation Requirements (<https://catalog.cccd.edu/orange-coast/graduation-requirements/>) section of this catalog.
2. **Certificate of Specialization** - 16 units or less in a locally approved program. Certificates of Specialization are not automatically awarded, not printed on official academic transcripts, and there is no acknowledgment of completion given at graduation. Please contact the division for details regarding the submission of petitions as procedures for each division vary. Most division offices prefer that students complete all of the required courses and then provide a copy of the transcript while some divisions allow petitions for Certificates of Specialization before finishing.

### Minimum Grade Requirement

In order to be awarded a certificate, students are required to obtain a grade of "C" or better in all program-required courses. Grades of "CR" or "P" will be accepted whereas "CR" or "P" meets the equivalency of a "C" or better. A list of certificate programs can be found in the Programs A-Z (<https://catalog.cccd.edu/orange-coast/programs-study/>) section of

this catalog. Check with a counselor to determine the requirements for completion.

Course	Title	Units
<b>Required Courses</b>		
APT A131	Introduction to Unmanned Aircraft Systems	3
APT A151	Unmanned Aircraft Systems Lab	1
CIS A160	Introduction to UAS Automation	4
CIS A177	Business Intelligence and Data Mining	3
CIS A263	Introduction to the Internet of Things	3
<b>Total Units</b>		<b>14</b>