GRADUATE CERTIFICATE IN
MIXED REALITY ENGINEERING

Offered by the Department of Computer Science in the
College of Engineering and Computer Science
MIXED REALITY ENGINEERING AT UCF

Given the proliferation of virtual, augmented and mixed reality in the world today, the College of Engineering and Computer Science has designed a graduate certificate program to meet the future needs of students pursuing mixed reality careers and companies requiring such talent. The Graduate Certificate in Mixed Reality Engineering focuses on the concepts and skills required for developing high-quality virtual reality, augmented reality and mixed reality systems and applications.

WHY PURSUE MIXED REALITY ENGINEERING?

The global mixed reality market is currently valued at more than $2 billion and is expected to exceed $18 billion by 2024. While technologies were initially focused on gaming and entertainment, mixed reality is now used across a diverse range of industries, including healthcare, education and training. Many companies are now looking at mixed reality systems to provide more effective and more efficient training solutions. UCF’s Graduate Certificate in Mixed Reality Engineering will prepare students for this future technological landscape.

WHO SHOULD APPLY?

Candidates for the program should have a strong programming background as well as a strong interest in mixed reality technologies and applications.

ADMISSIONS REQUIREMENTS

Admission is open to those with a bachelor’s degree in computer science or a closely related discipline from a regionally accredited institution with a minimum GPA of 3.0. An application to the graduate certificate program and official transcripts must be submitted. Applicants must apply online. All requested materials must be submitted by the established deadline.

In addition, applicants applying to this program who have attended a college or university outside of the United States must provide a course-by-course credential evaluation with GPA calculation.

Applications are accepted for the fall and spring terms only.

WHY UCF?

Orlando and UCF provide a unique advantage for students who study mixed reality engineering. Orlando is home to a number of companies that employ mixed reality technologies, including Disney, Electronic Arts, Lockheed Martin, Northrop Grumman and many more. Central Florida Research Park, located next to UCF’s main campus, houses several federal agencies that use MR, including the Air Force, Army, and Navy. Additionally, the NASA Kennedy Space Center is located only 35 miles to the east. UCF and CECS also have several faculty who are world-renown experts in virtual reality, augmented reality and mixed reality.
APPLICATION DEADLINES AND PROCEDURES

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For information on general UCF graduate admissions requirements that apply to all prospective students, please visit the admissions section of the Graduate Catalog.

CURRICULUM

The certificate program can be completed with nine credit hours. The curriculum includes three required courses that ensure students gain the concepts, skills and experience required for developing high-quality virtual reality, augmented reality, and mixed reality systems and applications. The three courses must be taken in sequence, as they are designed to build upon each other. The program culminates in a team-based capstone project in the Mixed Reality Project course.

Required courses — 9 credit hours
CAP 5115: Virtual Reality Engineering
CAP 6110: Augmented Reality Engineering
CAP 6117: Mixed Reality Project

BEST VALUE

The University of Central Florida is a thriving preeminent research university located in metropolitan Orlando. With more than 68,000 students, UCF is one of the largest universities in the U.S. In addition to its size and strength, UCF is ranked a best value university by Kiplinger, as well as one of the nation’s most affordable colleges by Forbes. It is also among the nation’s “most innovative universities” alongside Harvard, MIT, Stanford, Duke and Georgia Tech, according to U.S. News and World Report’s Best Colleges.

COLLEGE HIGHLIGHTS

College of Engineering and Computer Science

The College of Engineering and Computer Science strives to create new solutions to real-world problems through partnerships with some of the biggest names in technology, including NASA, Lockheed Martin, Boeing, Siemens and Walt Disney World. Its vision is to be among the nation’s top producers of engineering and computer science workforce talent in terms of scale and excellence.

Department of Computer Science

UCF has the oldest computer science Ph.D. program in Florida, and it was also the first Ph.D. offered at UCF. This indicates the centrality of computer science at UCF, and the strength of the department’s research. The department boasts a National Collegiate Cyber Defense Championship team, which won the national championship three times, and finished in second place in both 2018 and 2019.