Certificate in Unmanned Vehicle Systems (Computer Engineering)

About This Program

The Certi#cate in Unmanned Vehicle Systems (UVS) for Computer Engineering majors will educate undergraduate students in the knowledge and skills required for design, development and operation of UVS including Unmanned Aircraft Systems (UAS), Unmanned Ground Systems (UGS), and Unmanned Maritime Systems (UMS). The certi#cate program will emphasize the common aspects of UVS such as sensors, actuators, communications, and more importantly, decision-making capabilities (autonomy). This program aims at the dual goal of providing the UVS industry with a knowledgeable, locally available workforce and developing career opportunities for its participants. To this end, the Certi#cate in UVS will be awarded concurrently with an undergraduate degree.

Competencies

1. Upon completion, the students will be able to apply "systems thinking" to design an autonomous vehicle to satisfy specific mission requirements.
2. Upon completion, the students will be able to integrate sensors, actuators, and software on a mobility platform.

Admissions Criteria

The certificate is open to all degree-seeking students. Students who are not a part of an engineering professional program should contact a CSE advisor for permission.

Curriculum

UVS Foundations		
CSE 4378	INTRODUCTION TO UNMANNED VEHICLE SYSTEMS	3
CSE 4379	UNMANNED VEHICLE SYSTEM DEVELOPMENT	3
CSE Specialization		
CSE 3313	INTRODUCTION TO SIGNAL PROCESSING	3
CSE 3442	EMBEDDED SYSTEMS I	4
Select 1 from the folllowing:		3
CSE 4342	EMBEDDED SYSTEMS II	
CSE 4360	AUTONOMOUS ROBOT DESIGN AND PROGRAMMING	
CSE 4308	ARTIFICIAL INTELLIGENCE	
Total Hours		**16**

Course substitutions may be permitted if approved in advance by the certificate coordinator.

Program Completion

A combined GPA of 3.0 or better must be earned on all courses used to satisfy the certificate requirements.

Advising Resources

First time in college students meet with engineering advisors in the UAEC (UAECengineering@uta.edu). Transfer students are advised prior to New Maverick Orientation by the department. Students, please read all student emails carefully and consult the department advising webpage for additional contact information and answers to common questions.

Location:

ERB 6th Floor: ERB 643, ERB 644, ERB 645, ERB 646, ERB 622A

Email:

cseugadvising@uta.edu

Phone:

817-272-3785

Web:

Find our contact information, walk-in advising schedule, and virtual appointment links here (https://www.uta.edu/academics/schools-colleges/engineering/academics/departments/cse/students/undergraduate-advising/)