

Certificate in Unmanned Vehicle Systems (Industrial, Manufacturing, and Systems Engine

About This Program

The Certificate in Unmanned Vehicle Systems (UVS) (Industrial, Manufacturing, and Systems Engineering) will educate undergraduate students in the knowledge and skills required for design, development and operation of UVS including UAS (Unmanned Aircraft Systems), UGS (Unmanned Ground Systems), and UMS (Unmanned Maritime Systems). The certificate 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 Certificate 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.
3. Upon completion, the students will be able to select appropriate sensing, and control algorithms and deploy them on a mobility platform.

Curriculum

Required classes		6
IE 4378	INTRODUCTION TO UNMANNED VEHICLES SYSTEMS	
IE 4379	UNMANNED VEHICLE SYSTEM DEVELOPMENT	
9 credit hours from the following list		9
IE 2305	COMPUTER APPLICATIONS IN INDUSTRIAL ENGINEERING	
IE 3314	ENGINEERING RESEARCH METHODS	
IE 4325	AUTOMATION AND ROBOTICS FOR SERVICE AND MANUFACTURING SYSTEMS	
One 3 hour alternate UVS related course may be substituted based on consultation with the undergraduate curriculum advisor in the program.		

Advising Resources

Location:

325 Woolf Hall

Email:

IEUGAdvising@uta.edu

Phone:

817-272-3092

Web:

Undergraduate Advising Information