Certificate in the Fundamentals of Artificial Intelligence

About This Program

The Certificate in Artificial Intelligence is offered through the Computer Science and Engineering Department and will educate undergraduate students in their ability to understand different AI techniques that are being used for solving real world problems. Students will learn to understand the differences and uses of different AI techniques in order to choose from them for solving a problem at hand. Students will be able to apply this knowledge to subject areas, such as robotics, computer vision, image processing, speech recognition, health informatics and bioinformatics, and social networks data. The Certificate in Artificial Intelligence will be awarded concurrently with an undergraduate degree.

Competencies

1. Upon completion, students will have an ability to understand the mathematical and algorithmic properties of methods commonly used in the areas of computer vision, machine learning, and neural networks. Such properties include, but are not limited to, space and time complexity, local or global optimality of obtained solutions, and being deterministic or not.
2. Upon completion, students will have an ability to implement from scratch, in modern programming languages, a variety of fundamental techniques from the areas of computer vision, machine learning, and neural networks. Examples of such techniques include image edge detection, decision trees, and backpropagation.
3. Upon completion, students will have ability to apply this knowledge to subject areas, such as robotics, computer vision, image processing, speech recognition, health informatics and bioinformatics, and social networks data.

Admissions Criteria

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

Curriculum

CSE 4308	ARTIFICIAL INTELLIGENCE	3
CSE 4309	FUNDAMENTALS OF MACHINE LEARNING	3
CSE 4310	FUNDAMENTALS OF COMPUTER VISION	3
CSE 4311	NEURAL NETWORKS AND DEEP LEARNING	3
Total Hours		**12**

Program Completion

Students must complete 12 hours of coursework as outlined below. 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/)