

 FLORIDA ATLANTIC UNIVERSITY	NEW/CHANGE PROGRAM REQUEST Graduate Programs		UGPC Approval _____ UFS Approval _____ Banner Posted _____ Catalog _____
	Department Computer and Electrical Eng. and Computer Science College Engineering and Computer Science		
Program Name Artificial Intelligence Graduate Certificate	<input checked="" type="checkbox"/> New Program <input type="checkbox"/> Change Program	Effective Date <i>(TERM & YEAR)</i> Fall 2020	
<p>Please explain the requested change(s) and offer rationale below or on an attachment</p> <p>CEECs department is proposing a 12-credit certificate in Artificial Intelligence. The program consists of a core course (CAP 6635 Artificial Intelligence) and 3 elective courses. More details are present in the catalog entry document.</p>			
Faculty Contact/Email/Phone Dr. Hanqi Zhuang/ zhuang@fau.edu/561-297-3413		Consult and list departments that may be affected by the change(s) and attach documentation NA	
Approved by Department Chair <u>Hanqi Zhuang</u> College Curriculum Chair <u>Ramesh Teegavarapu</u> College Dean <u>Mihaela Cardel</u> UGPC Chair _____ UGC Chair _____ Graduate College Dean _____ UFS President _____ Provost _____		Date _____ 11/18/2019 _____ 11/22/2019 _____ 11/22/2019 _____ _____ _____ _____	

Email this form and attachments to UGPC@fau.edu one week before the UGPC meeting so that materials may be viewed on the UGPC website prior to the meeting.

GRADUATE COLLEGE

Computer & Electrical Engineering and Computer Science

CEECS department offers several Certificate programs. Each additional certificate requires at least 4 courses (12 credits) which have not been counted in any other certificate program in the College of Engineering and Computer Science.

Artificial Intelligence Graduate Certificate

Over the past years, there has been a dramatic progress in the rise of artificial intelligence (AI) and in its use in the development of systems that can reason and respond to increasingly complex situations. AI is everywhere and the change enabled by these technologies has just begun. AI is transforming every segment of American industry. It is making agriculture more precise and efficient, new medical technologies, and the prospect of autonomous transportation and advanced manufacturing close to reality. To become competitive, the companies will have to embrace AI to some extent. These technological advances are made possible by engineers and scientists with knowledge and expertise in the latest advancements in the field of AI.

This 12-credit certificate provides graduate students with knowledge and skills in the concepts, technologies, and applications of artificial intelligence.

Admission

This certificate program is open to students with a bachelor's degree in engineering or science and a GPA of at least 3.0. Students must satisfy the prerequisites for each course in the program. The average GPA of all four courses (1 core + 3 elective courses) counted in the program must be 3.0 or better. All course materials are in English; all international students must demonstrate proficiency in English to enter the program.

Curriculum

Core Course (required)		
Artificial Intelligence	CAP 6635	3
Elective Courses (choose three)		
Computational Foundations of AI	CAP 5625	3
Data Mining and Machine Learning	CAP 6673	3
Robotic Applications	EEL 5661	3
Artificial Intelligence in Medicine and Healthcare	CAP 6683	3
Introduction to Data Science	CAP 5768	3
Data Mining for Bioinformatics	CAP 6546	3
Natural Language Processing	CAP 6640	3
Introduction to Neural Networks	CAP 5615	3
Sparse Learning	CAP 6617	3
Deep Learning	CAP 6619	3
Advanced Data Mining and Machine Learning	CAP 6778	3
Machine Learning for Computer Vision	CAP 6618	3
Computer Performance Modeling	CEN 6405	3