

 <b>FLORIDA ATLANTIC UNIVERSITY</b>	<b>NEW/CHANGE PROGRAM REQUEST</b> <b>Graduate Programs</b>		UGPC Approval _____ UFS Approval _____ Banner Posted _____ Catalog _____
	<b>Department</b> Computer & Electrical Engineering and Comp. Science  <b>College</b> Engineering and Computer Science		
<b>Program Name</b> Big Data Analytics Graduate Certificate	<input type="checkbox"/> <b>New Program</b>  <input checked="" type="checkbox"/> <b>Change Program</b>	<b>Effective Date</b> <small>(TERM &amp; YEAR)</small> Summer 2018	
<b>Please explain the requested change(s) and offer rationale below or on an attachment</b>  This proposal requests updating the catalog: - Add the course "CAP 6807 Computational Advertising and Real-Time Data Analytics" to the CS Data Analytics course list.			
<b>Faculty Contact/Email/Phone</b> Dr. Mihaela Cardei / mcardei@fau.edu / 561-297-3459		<b>Consult and list departments that may be affected by the change(s) and attach documentation</b> College of Business, ITOM.	
<b>Approved by</b> Department Chair _____ College Curriculum Chair _____ College Dean _____ UGPC Chair _____ UGC Chair _____ Graduate College Dean _____ UFS President _____ Provost _____		<b>Date</b> 2/13/18 2/14/18 2/14/18 _____ _____ _____ _____	

Email this form and attachments to [UGPC@fau.edu](mailto: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**

**FEB 21 2018**

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# College of Engineering and Computer Science

## Computer & Electrical Engineering and Computer Science

### Big Data Analytics Graduate Certificate

The digital age is here to stay. Organizations now own and have access to unfathomable amounts of data. New technologies and efforts are needed to move on to the next phase of the digital revolution - the data revolution. To provide students with the knowledge necessary in this age of Big Data, the Department of Computer and Electrical Engineering and Computer Science (CEECS) and the Department of Information Technology and Operations Management (ITOM) have jointly designed the Big Data Analytics graduate certificate. This 12-credit certificate allows graduate students to expand their knowledge and skills in the concepts, technologies, and tools of business intelligence, data analytics and business analytics and be recognized for their achievement. The certificate program has two tracks: Computer Science (CS) and Business (BU).

### Tracks

**CS Track:** The Big Data Analytics certificate with a track in Computer Science will be granted to a student who completes three 3-credit courses from the CS Data Analytics course list and one 3-credit course from the ITOM Business Analytics course list.

**BU Track:** The Big Data Analytics certificate with a track in Business will be granted to a student who completes three 3-credit courses from the ITOM Business Analytics course list and one 3-credit course from the CS Data Analytics course list.

### Admission

**CS Track:** Open to students who have a B.S. degree in Computer Science or in a related field of science or engineering and a GPA of at least 3.0. Students must satisfy the prerequisites for each course in the program. All four courses must be completed with a GPA of 3.0 or better. All course materials are in English; all international students must demonstrate proficiency in English to enter the program.

**BU Track:** Open to students who have a bachelor's degree in Business or in a related field and a GPA of at least 3.0. Students must satisfy the prerequisites for each course in the program. All four courses must be completed with a GPA of 3.0 or better. All course materials are in English; all international students must demonstrate proficiency in English to enter the program.

### Big Data Analytics Courses by Track

CS Data Analytics Courses (Select three from this list and one from the list of ITOM courses.)		
Introduction to Neural Networks	CAP 5615	3
Social Networks and Big Data Analytics	CAP 6315	3
Data Mining for Bioinformatics	CAP 6546	3
Data Mining and Machine Learning	CAP 6673	3
Information Retrieval	CAP 6776	3
Web Mining	CAP 6777	3

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Advanced Data Mining and Machine Learning	CAP 6778	3
Big Data Analytics with Hadoop	CAP 6780	3
Computer Performance Modeling	CEN 6405	3
Deep Learning	CAP 6619	3
<u>Computational Advertising and Real-Time Data Analytics</u>	<u>CAP 6807</u>	<u>3</u>
<b>ITOM Business Analytics Courses</b> <i>(Select three from this list and one from the list of CS courses.)</i>		
Data Mining and Predictive Analytics	ISM 6136	3
Database Management Systems	ISM 6217	3
Introduction to Business Analytics and Big Data	ISM 6404	3
Advanced Business Analytics	ISM 6405	3
Social Media and Web Analytics	ISM 6555	3
Data Analysis for Managers	QMB 6603	3

**From:** Tamara Dinev  
**Sent:** Monday, February 12, 2018 11:18:57 AM  
**To:** Mihaela Cardei  
**Subject:** RE: CEECS item requesting ITOM approval

Hi Dr. Cardei:

ITOM approves the addition as referred below

Tamara

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Tamara Dinev, Ph.D.  
Department Chair and Professor  
Dean's Research Fellow  
Department of Information Technology and Operations Management  
College of Business  
Florida Atlantic University  
Boca Raton, Florida 33431  
OFFICE: Fleming Hall, 219  
TEL: (561) 297-3181  
FAX: (561) 297-3043  
e-mail: [tdinev@fau.edu](mailto:tdinev@fau.edu)

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**From:** Mihaela Cardei  
**Sent:** Monday, February 12, 2018 9:29 AM  
**To:** Tamara Dinev <[tdinev@fau.edu](mailto:tdinev@fau.edu)>  
**Subject:** CEECS item requesting ITOM approval

Dear Dr. Dinev,

we would like to add the course "CAP 6807 Computational Advertising and Real-Time Data Analytics" to the CS Data Analytics course list in the Bug Data Analytics Graduate Certificate.

Could you please review the attached document and let me know if ITOM approves this item?

Best regards,  
Mihaela Cardei