

 <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 and Electrical Eng. and Computer Science <b>College</b> Engineering and Computer Science	
<b>Program Name</b> PhD in Computer Science	<input type="checkbox"/> <b>New Program</b> <input checked="" type="checkbox"/> <b>Change Program</b>	<b>Effective Date</b> (TERM & YEAR) Fall 2019
<b>Please explain the requested change(s) and offer rationale below or on an attachment</b>  CEECS department requests to add a new concentration in Data Science and Analytics to the PhD program in Computer Science. Students enrolled in this concentration will gain expertise, through both coursework and research activity, in theoretical and applied data science and analytics. The admission and degree requirements are described in the attachment.		
<b>Faculty Contact/Email/Phone</b> Taghi Khoshgoftaar/khoshgof@fau.edu/(561) 297 - 3994	<b>Consult and list departments that may be affected by the change(s) and attach documentation</b> NA	
<b>Approved by</b> Department Chair <u>          Khaled Soliman          </u> College Curriculum Chair <u>          M. Cardin          </u> College Dean <u>          P. H. H.          </u> UGPC Chair <u>          P. H. H.          </u> UGC Chair <u>          P. H. H.          </u> Graduate College Dean <u>          Khaled Soliman          </u> UFS President _____ Provost _____	<b>Date</b> <u>          2/26/2019          </u> <u>          3/11/19          </u> <u>          3/11/2019          </u> <u>          3/27/2019          </u> <u>          3/27/19          </u> <u>          3/27/2019          </u> _____ _____	

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.



## Doctor of Philosophy with Major in Computer Science

### Data Science and Analytics Concentration

The PhD in Computer Science program with concentration in Data Science and Analytics requires gaining expertise, through both coursework and research activity, in theoretical and applied data science and analytics.

### Admission Requirements

The applicants are required to meet all the admission requirements for the Doctor of Philosophy with Major in Computer Science program.

### Degree Requirements

The applicants are required to meet all the degree requirements for the Doctor of Philosophy with Major in Computer Science program. In addition, the following requirements must be met:

1. The graduate coursework counted in the PhD program must contain at least 4 graduate courses from Table 1. These courses focus on theoretical and/or applied data science and analytics. Additional courses may be approved by the dissertation advisor. Graduate courses completed during a master's degree can be used to meet this requirement.
2. The student's PhD dissertation research and scholarship must have a strong emphasis on one or more areas of data science and analytics, including, but not limited to applied and/or theoretical areas.

Table 1

Introduction to Data Science	CAP 5768	3
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
Natural Language Processing	CAP 6640	3
Sparse Learning	CAP 6617	3
Web Mining	CAP 6777	3
Advanced Data Mining and Machine Learning	CAP 6778	3
Machine Learning for Computer Vision	CAP 6618	3
Big Data Analytics with Hadoop	CAP 6780	3
Computer Performance Modeling	CEN 6405	3
Deep Learning	CAP 6619	3
Computational Advertising and Real-Time Data Analytics	CAP 6807	3
Artificial Intelligence	CAP 6635	3

GRADUATE COLLEGE

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