

 <b>FLORIDA ATLANTIC UNIVERSITY</b>	<b>NEW/CHANGE PROGRAM REQUEST</b> <b>Graduate Programs</b>		UGPC Approval _____ UFS Approval _____ Banner _____ Catalog _____
	<b>Department</b> Computer and Electrical Engineering and Computer Science <b>College</b> Engineering and Computer Science		
<b>Program Name</b> MS in Data Science and Analytics	<input type="checkbox"/> <b>New Program*</b> <input checked="" type="checkbox"/> <b>Change Program*</b>	<b>Effective Date (TERM &amp; YEAR)</b> Fall 2021	
<b>Please explain the requested change(s) and offer rationale below or on an attachment.</b> Add CAP 6610 Applied Machine Learning to the Electives Table.			
<small>*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.</small>			
<b>Faculty Contact/Email/Phone</b> Hanqi Zhuang, zhuang@fau.edu, 561-297-3413		<b>Consult and list departments that may be affected by the change(s) and attach documentation</b> Mathematical Sciences, Political Science, ITOM	
<b>Approved by</b>		<b>Date</b>	
Department Chair <u>Hanqi Zhuang</u> <small>Digitally signed by Hanqi Zhuang Date: 2021.03.10 11:21:56 -05'00'</small>		_____ 03/10/2021	
College Curriculum Chair <u>Francisco Presuel-Moreno</u> <small>Digitally signed by Francisco Presuel-Moreno DN: cn=Francisco Presuel-Moreno, o=Florida Atlantic University, ou=Ocean and Mechanical Engineering, email=fpresuel@fau.edu, c=US Date: 2021.03.10 17:27:33 -05'00'</small>		_____ 3/11/2021	
College Dean <u>M. Cardel</u> <small>Digitally signed by Mhaela Cardel DN: cn=Mhaela Cardel, o=Florida Atlantic University, ou, email=mcardei@fau.edu, c=US Date: 2021.03.11 08:46:22 -05'00'</small>		_____ _____ _____ _____ _____ _____ _____	
UGPC Chair _____ UGC Chair _____ Graduate College Dean _____ UFS President _____ Provost _____		_____ _____ _____ _____ _____ _____	

Email this form and attachments to [UGPC@fau.edu](mailto:UGPC@fau.edu) 10 days before the UGPC meeting.

## Master of Science with Major in Data Science and Analytics

### Electives Table

<b><i>Business Analytics</i></b>		
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 Management and Analysis with Excel	QMB 6303	3
Data Analysis for Managers	QMB 6603	3
<b><i>Database and Cloud Computing</i></b>		
Multiprocessor Architecture	CDA 6132	3
Cloud Computing	CEN 5086	3
New Directions in Database Systems	COP 6726	3
Theory and Implementation of Database Systems	COP 6731	3
Database Management Systems	ISM 6217	3
<b><i>Data Mining and Machine Learning</i></b>		
Introduction to Neural Networks	CAP 5615	3
Social Networks and Big Data Analytics	CAP 6315	3
Data Mining for Bioinformatics	CAP 6546	3
Machine Learning for Computer Vision	CAP 6618	3
Deep Learning	CAP 6619	3
Data Mining and Machine Learning	CAP 6673	3 <i>or</i>
<u>Applied Machine Learning</u>	<u>CAP 6610</u>	<u>3</u>
Information Retrieval	CAP 6776	3
Web Mining	CAP 6777	3
Advanced Data Mining and Machine Learning	CAP 6778	3
Big Data Analytics with Hadoop	CAP 6780	3
Computational Advertising and Real-Time Analytics	CAP 6807	3
Computer Performance Modeling	CEN 6405	3
Data Mining and Predictive Analytics	ISM 6136	3
<b><i>Data Security and Privacy</i></b>		
Computer Data Security	CIS 6370	3
Cyber Security: Measurement and Data Analysis	CTS 6319	3
Management of Information Assurance and Security	ISM 6328	3
Introduction to Cryptology and Information Security	MAD 5474	3
Cryptanalysis	MAD 6478	3
Quantum Mechanics 2	PHY 6646	3
<b><i>Scientific Applications and Modeling</i></b>		

Photogrammetry and Aerial Photography Interpretation	GIS 6028C	3
LiDAR Remote Sensing and Applications	GIS 6032C	3
Web GIS	GIS 6061C	3
Geospatial Databases	GIS 6112C	3
Hyperspectral Remote Sensing	GIS 6127	3
Spatial Data Analysis	GIS 6306	3
Special Topics (Quantum Information Processing)	PHY 6938	3
Computational Physics	PHZ 5156	3
Numerical Relativity	PHZ 7609	3
<b>Social Data Science</b>		
Advanced Anthropological Research 1	ANG 6090	3
Advanced Anthropological Research 2	ANG 6092	3
Quantitative Reasoning in Anthropological Research	ANG 6486	3
Social Networks and Big Data Analytics	CAP 6315	3
Quantitative Communication Research	COM 6316	3
Special Topics (Quantitative Methods)	POS 6934	3
Research Design in Political Science	POS 6736	3
Seminar in Advanced Research Methods	SYA 6305	3
<b>Statistics and Data Applications</b>		
Biomedical Data and Informatics	BSC 6459	3
Biostatistics	STA 5195	3
Statistical Computing	STA 6106	3
Survival Analysis	STA 6177	3
Biostatistics - Longitudinal Data Analysis	STA 6197	3
Applied Statistical Methods	STA 6207	3
Regression Analysis	STA 6236	3
Mathematical Statistics	STA 6326	3
Applied Time Series Analysis	STA 6857	3
Applied Computational Topology	MTG 6329	3

**From:** Kevin Wagner <kwagne15@fau.edu>  
**Sent:** Wednesday, March 10, 2021 11:46 AM  
**To:** Mihaela Cardei <mcardei@fau.edu>  
**Subject:** Fwd: MSDSA, adding CAP 6610 to the Electives Table

Three of the 4 colleges have already said they have no objection. So, even if Science had an issue, which I doubt they will, I think you are fine to represent that the committee vote was in favor.

Sorry I didn't send this out earlier.

Kevin

*KW*

*Kevin M. Wagner, J.D., PhD*  
**Professor and Chair, Department of Political Science**  
**President, FAU Faculty Senate**  
**Trustee, FAU Board of Trustees**  
**Director of the Jack Miller Forum**  
**Dorothy F. Schmidt College of Arts and Letters**  
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----- Forwarded message -----

**From:** **Mihaela Cardei** <[mcardei@fau.edu](mailto:mcardei@fau.edu)>  
**Date:** Wed, Mar 10, 2021 at 10:26 AM  
**Subject:** RE: MSDSA, adding CAP 6610 to the Electives Table  
**To:** Kevin Wagner <[kwagne15@fau.edu](mailto:kwagne15@fau.edu)>

Hello Kevin,

Just a reminder please. We would like to meet the March 15th deadline for submitting to UGPC if possible.

Thank you in advance,  
Mihaela

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**From:** Mihaela Cardei  
**Sent:** Monday, March 8, 2021 7:29 PM  
**To:** Kevin Wagner <[kwagne15@fau.edu](mailto:kwagne15@fau.edu)>  
**Cc:** Hanqi Zhuang <[zhuang@fau.edu](mailto:zhuang@fau.edu)>; Taghi Khoshgoftaar <[khoshgof@fau.edu](mailto:khoshgof@fau.edu)>  
**Subject:** MSDSA, adding CAP 6610 to the Electives Table

Hello Kevin,

CEECs department is proposing to add CAP 6610 Applied Machine Learning to the Electives Table. Please see attached the catalog entry. Please let us know whether the MSDSA oversight committee has any objections to adding this course as an elective.

Thank you,  
Mihaela