FLORIDA ATLANTIC UNIVERSITY	NEW/CHANGE PROGE Graduate Pro Department CEECS College Engineering and Computer Se	grams	UGPC Approval UFS Approval Banner Posted Catalog
Program Name Master of Science v Management	with Major in Information Technology and	New Program Change Program	Effective Date (TERM & YEAR) Spring 2020
Please explain	the requested change(s) and offer i	rationale below or on ar	attachment
Add CAP 6640 at instructor.	nd CAP 5768 to the group of CS elective cou	irses. Allow other CEECS elec	ctives with prior approval of the
Faculty Contact/	/Ewail /Dhowa	Consult and list donorty	would that work has offered all have
	u.edu / 561-297-3485	the change(s) and attack	
Approved by Department Chair College Curriculu College Dean — UGPC Chair —			Date 4/15/2019 4/15/19 4/16/2019

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

Graduate College Dean

UFS President

Provost

Master of Science with Major in Information Technology and Management

Advanced Information Technology Concentration
Students are required to take four courses from the following list:

Software Engineering	CEN 5035
Object-Oriented Software Design	COP 5339
Data Mining and Machine Learning	CAP 6673 or
Theory and Implementation of the Database Systems	COP 6731
Management of Information Systems and Technology	ISM 6026
In addition, students need to take four electives from the for CEECS courses. Additional CEECS courses may be used with prior approval of the CEECS advisor.	
Data Mining and Machine Learning (if not counted in the required courses group)	CAP 6673
Advanced Data Mining and Machine Learning	CAP 6778
Software Maintenance and Evolution	CEN 6027
Software Testing	CEN 6076
Computer Data Security	CIS 6370
Mobile Computing	CNT 6517
Topics in Computer Science	COT 5930
Topics in Computer Science	COT 6930
Computer Performance Modeling	CEN 6405
Video Communication	CNT 6885
Software Architecture and Patterns	CEN 6085
Information Retrieval	CAP 6776
Natural Language Processing	CAP 6640
Introduction to Data Science	CAP 5768
Cloud Computing	CEN 5086
Theory and Implementation of Database Systems (if not counted in the required courses group)	COP 6731
Cyber Security: Measurement and Data Analysis	CTS 6319
Computational Advertising and Real-Time Data Analytics	CAP 6807
Social Network and Big Data Analytics	CAP 6315
Foundations of Vision	CAP 6411
Sensor Networks and Smart Systems	CNT 5109
The last two electives must be chosen from the following I	TOM courses:
Information Technology Project and Change Management	ISM 6316
Management of Information Assurance and Security	ISM 6328
Enterprise Information Technology Service Management	ISM 6368
Web-Based Business Development	ISM 6508

GRADUATE COLLEGE

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Information Technology Sourcing Management	ISM 6509
Advanced Business Analytics	ISM 6405
Data Mining and Predictive Analytics	ISM 6136
Social Media and Web Analytics	ISM 6555
Mobile Apps for Business	ISM 6058

Information Technology Management Concentration
Students are required to take the following seven courses offered by the College of Business:

Management of Information Systems and Technology	ISM 6026
Information Technology Project and Change Management	ISM 6316
Management of Information Assurance and Security	ISM 6328
Enterprise Information Technology Service Management	ISM 6368
Web-Based Business Development	ISM 6508
Information Technology Sourcing Management	ISM 6509
Graduate Business Communication Applications	GEB 6215
Students must take one elective from the following IT	OM courses:
Advanced Business Analytics	ISM 6405
Data Military and Data Military And Little	ISM 6136
Data Mining and Predictive Analytics	ISM 6555
Social Media and Web Analytics	10111 0000
	ISM 6058 e following courses Science. Additional
Social Media and Web Analytics Mobile Apps for Business In addition, students must take three electives from the offered by the College of Engineering and Computer 5	ISM 6058 e following courses Science, Additional
Social Media and Web Analytics Mobile Apps for Business In addition, students must take three electives from the offered by the College of Engineering and Computer SCEECS courses may be used as electives with prior as	ISM 6058 e following courses Science, Additional
Social Media and Web Analytics Mobile Apps for Business In addition, students must take three electives from the offered by the College of Engineering and Computer SCEECS courses may be used as electives with prior acceeds advisor.	ISM 6058 e following courses Science, Additional approval of the
Social Media and Web Analytics Mobile Apps for Business In addition, students must take three electives from the offered by the College of Engineering and Computer SCEECS courses may be used as electives with prior aCEECS advisor: Data Mining and Machine Learning Software Maintenance and Evolution	ISM 6058 se following courses Science, Additional approval of the CAP 6673
Social Media and Web Analytics Mobile Apps for Business In addition, students must take three electives from the offered by the College of Engineering and Computer SCECS courses may be used as electives with prior aCECS advisor: Data Mining and Machine Learning Software Maintenance and Evolution Software Testing	ISM 6058 se following courses Science. Additional approval of the CAP 6673 CEN 6027
Social Media and Web Analytics Mobile Apps for Business In addition, students must take three electives from the offered by the College of Engineering and Computer CEECS courses may be used as electives with prior and CEECS advisor: Data Mining and Machine Learning Software Maintenance and Evolution Software Testing Computer Data Security	ism 6058 re following courses Science, Additional approval of the CAP 6673 CEN 6027 CEN 6076
Social Media and Web Analytics Mobile Apps for Business In addition, students must take three electives from the offered by the College of Engineering and Computer SCEECS courses may be used as electives with prior aCEECS advisor: Data Mining and Machine Learning Software Maintenance and Evolution Software Testing Computer Data Security Mobile Computing	ISM 6058 se following courses Science. Additional approval of the CAP 6673 CEN 6027 CEN 6076 CIS 6370
Social Media and Web Analytics Mobile Apps for Business In addition, students must take three electives from the offered by the College of Engineering and Computer CEECS courses may be used as electives with prior and CEECS advisor: Data Mining and Machine Learning Software Maintenance and Evolution Software Testing Computer Data Security Mobile Computing Object-Oriented Software Design	ISM 6058 se following courses Science. Additional approval of the CAP 6673 CEN 6027 CEN 6076 CIS 6370 CNT 6517
Social Media and Web Analytics Mobile Apps for Business In addition, students must take three electives from the offered by the College of Engineering and Computer SCEECS courses may be used as electives with prior aCEECS advisor: Data Mining and Machine Learning Software Maintenance and Evolution Software Testing Computer Data Security Mobile Computing Object-Oriented Software Design Theory and Implementation of Database Systems	ISM 6058 se following courses Science, Additional approval of the CAP 6673 CEN 6027 CEN 6076 CIS 6370 CNT 6517 COP 5339
Social Media and Web Analytics Mobile Apps for Business In addition, students must take three electives from thoffered by the College of Engineering and Computer CEECS courses may be used as electives with prior acceeds advisor: Data Mining and Machine Learning	ISM 6058 se following courses Science. Additional approval of the CAP 6673 CEN 6027 CEN 6076 CIS 6370 CNT 6517 COP 5339 COP 6731
Social Media and Web Analytics Mobile Apps for Business In addition, students must take three electives from the offered by the College of Engineering and Computer SCEECS courses may be used as electives with prior aCEECS advisor: Data Mining and Machine Learning Software Maintenance and Evolution Software Testing Computer Data Security Mobile Computing Object-Oriented Software Design Theory and Implementation of Database Systems Topics in Computer Science	ISM 6058 se following courses Science. Additional approval of the CAP 6673 CEN 6027 CEN 6076 CIS 6370 CNT 6517 COP 5339 COP 6731 COT 5930
Social Media and Web Analytics Mobile Apps for Business In addition, students must take three electives from the offered by the College of Engineering and Computer CEECS courses may be used as electives with prior and Electives with prior and Machine Learning Data Mining and Machine Learning Software Maintenance and Evolution Software Testing Computer Data Security Mobile Computing Object-Oriented Software Design Theory and Implementation of Database Systems Topics in Computer Science Information Retrieval	ISM 6058 se following courses Science. Additional approval of the CAP 6673 CEN 6027 CEN 6076 CIS 6370 CNT 6517 COP 5339 COP 6731 COT 5930 CAP 6776
Social Media and Web Analytics Mobile Apps for Business In addition, students must take three electives from the offered by the College of Engineering and Computer SCEECS courses may be used as electives with prior aCEECS advisor: Data Mining and Machine Learning Software Maintenance and Evolution Software Testing Computer Data Security Mobile Computing Object-Oriented Software Design Theory and Implementation of Database Systems Topics in Computer Science Information Retrieval Natural Language Processing	ISM 6058 se following courses Science. Additional approval of the CAP 6673 CEN 6027 CEN 6027 CIS 6370 CNT 6517 COP 5339 COP 6731 COT 5930 CAP 6640
Social Media and Web Analytics Mobile Apps for Business In addition, students must take three electives from the offered by the College of Engineering and Computer CEECS courses may be used as electives with prior and E	ISM 6058 se following courses Science, Additional approval of the CAP 6673 CEN 6027 CEN 6076 CIS 6370 CNT 6517 COP 5339 COP 6731 COT 5930 CAP 6776 CAP 6640 CAP 5768

Computational Advertising and Real-Time Data Analytics	CAP 6807
Social Network and Big Data Analytics	CAP 6315
Introduction to Neural Networks	CAP 5615
Foundations of Vision	CAP 6411
Software Architecture and Patterns	CEN 6085
Sensor Networks and Smart Systems	CNT 5109

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Computer Science Data Analytics Concentration
Students are required to take three courses from the following list:

Software Engineering	CEN 5035
Object-Oriented Software Design	COP 5339
Data Mining and Machine Learning	CAP 6673 or
Introduction to Neural Networks	CAP 5615
In addition, students must take four electives from the followic courses:	ing CEECS
Data Mining and Machine Learning (if not counted in the required courses group)	CAP 6673
Introduction to Neural Networks (if not counted in the required courses group)	CAP 5615
Social Network and Big Data Analytics	CAP 6315
Deep Learning	CAP 6619
Natural Language Processing	CAP 6640
Data Mining for Bioinformatics	CAP 6546
Information Retrieval	CAP 6776
Web Mining	CAP 6777
Advanced Data Mining and Machine Learning	CAP 6778
Big Data Analytics with Hadoop	CAP 6780
Computer Performance Modeling	CEN 6405
Computational Advertising and Real-Time Data Analytics	CAP 6807
Introduction to Data Science	CAP 5768
The last three electives must be chosen from the following I	FOM courses:
Data Mining and Predictive Analytics	ISM 6136
Database Management Systems	ISM 6217
Introduction to Business Analytics and Big Data	ISM 6404
Advanced Business Analytics	ISM 6405
Social Media and Web Analytics	ISM 6555
Data Analysis for Managers	QMB 6603

Business Analytics Concentration
Students are required to take the following seven courses offered by the College of Business:

Management of Information Systems and Technology	ISM 6026
Information Technology Project and Change Management	ISM 6316
Introduction to Business Analytics and Big Data	ISM 6404
Data Mining and Predictive Analytics	ISM 6136
Advanced Business Analytics	ISM 6405
Social Media and Web Analytics	ISM 6555
Graduate Business Communication Applications	GEB 6215
Students must take one elective from the following IT	OM courses:
Information Technology Sourcing Management	ISM 6509
Web-Based Business Development	ISM 6508
Mobile Apps for Business	ISM 6058
	ISM 6328
Management of Information Assurance and Security	
Enterprise Information Technology Service Management	ISM 6368
Enterprise Information Technology Service Management In addition, students must take three electives from th offered by the College of Engineering and Computer 5	ISM 6368 e following courses
Management In addition, students must take three electives from th offered by the College of Engineering and Computer State Mining and Machine Learning	ISM 6368 e following courses Science: CAP 6673
Enterprise Information Technology Service Management In addition, students must take three electives from the offered by the College of Engineering and Computer Service Data Mining and Machine Learning Information Retrieval	ISM 6368 e following courses Science: CAP 6673 CAP 6776
Enterprise Information Technology Service Management In addition, students must take three electives from the offered by the College of Engineering and Computer Service Data Mining and Machine Learning Information Retrieval Natural Language Processing Computational Advertising and Real-Time Data	ISM 6368 e following courses Science: CAP 6673
Enterprise Information Technology Service Management In addition, students must take three electives from the offered by the College of Engineering and Computer State Mining and Machine Learning Information Retrieval Natural Language Processing Computational Advertising and Real-Time Data Analytics	ISM 6368 e following courses Science: CAP 6673 CAP 6776 CAP 6640
Enterprise Information Technology Service Management In addition, students must take three electives from the offered by the College of Engineering and Computer Service Data Mining and Machine Learning Information Retrieval Natural Language Processing Computational Advertising and Real-Time Data Analytics Social Network and Big Data Analytics	ISM 6368 e following courses Science: CAP 6673 CAP 6776 CAP 6640 CAP 6807
Enterprise Information Technology Service Management In addition, students must take three electives from the offered by the College of Engineering and Computer Service Data Mining and Machine Learning Information Retrieval Natural Language Processing Computational Advertising and Real-Time Data Analytics Social Network and Big Data Analytics	ISM 6368 e following courses Science: CAP 6673 CAP 6776 CAP 6640 CAP 6807 CAP 6315
Enterprise Information Technology Service Management In addition, students must take three electives from the offered by the College of Engineering and Computer in Data Mining and Machine Learning Information Retrieval Natural Language Processing Computational Advertising and Real-Time Data Analytics Social Network and Big Data Analytics Introduction to Neural Networks Deep Learning	ISM 6368 e following courses Science: CAP 6673 CAP 6776 CAP 6640 CAP 6807 CAP 6315 CAP 5615
Enterprise Information Technology Service Management In addition, students must take three electives from th offered by the College of Engineering and Computer 3 Data Mining and Machine Learning Information Retrieval Natural Language Processing Computational Advertising and Real-Time Data Analytics Social Network and Big Data Analytics Introduction to Neural Networks Deep Learning Data Mining for Bioinformatics	ISM 6368 e following courses Science: CAP 6673 CAP 6776 CAP 6640 CAP 6807 CAP 6315 CAP 5615 CAP 6619
Enterprise Information Technology Service Management In addition, students must take three electives from the offered by the College of Engineering and Computer of Data Mining and Machine Learning Information Retrieval Natural Language Processing Computational Advertising and Real-Time Data Analytics Social Network and Big Data Analytics Introduction to Neural Networks Deep Learning Data Mining for Bioinformatics Web Mining	ISM 6368 e following courses Science: CAP 6673 CAP 6776 CAP 6640 CAP 6807 CAP 6315 CAP 5615 CAP 6619 CAP 6546
Enterprise Information Technology Service Management In addition, students must take three electives from the offered by the College of Engineering and Computer in the offered by the College of Engineering and Computer in the offered by the College of Engineering and Computer in the offered by the College of Engineering and Computer in the offered by the College of Engineering and Rearrange Information Retrieval Natural Language Processing Computational Advertising and Real-Time Data Analytics Social Network and Big Data Analytics Introduction to Neural Networks Deep Learning Data Mining for Bioinformatics Web Mining Advanced Data Mining and Machine Learning	ISM 6368 e following courses Science: CAP 6673 CAP 6776 CAP 6640 CAP 6315 CAP 5615 CAP 6619 CAP 6546 CAP 6777
Enterprise Information Technology Service Management In addition, students must take three electives from the offered by the College of Engineering and Computer of Data Mining and Machine Learning Information Retrieval Natural Language Processing Computational Advertising and Real-Time Data Analytics Social Network and Big Data Analytics Introduction to Neural Networks	ISM 6368 e following courses Science: CAP 6673 CAP 6776 CAP 6640 CAP 6807 CAP 6315 CAP 5615 CAP 6619 CAP 6546 CAP 6777 CAP 6778

From: Tamara Dinev

Sent: Monday, April 15, 2019 11:11 AM

To: Mihaela Cardei Cc: Valentine Aalo

Subject: RE: Big Data Analytics Certificate & MSITM programs

Dear Dr. Cardei:

ITOM approves the change.

Best Regards:

Tamara

Tamara Dinev, Ph.D., Department Chair and Professor Dean's Distinguished Research Fellow Department of Information Technology and Operations Management, FL 219 College of Business, Florida Atlantic University Boca Raton, Florida 33431

tel. (561) 297-3181, email: tdinev@fau.edu

Google Scholar: https://scholar.google.com/citations?user=YH8QZ-YAAAAJ&hl=en

From: Mihaela Cardei <mcardei@fau.edu>
Sent: Monday, April 15, 2019 10:51 AM
To: Tamara Dinev <tdinev@fau.edu>
Cc: Valentine Aalo <aalo@fau.edu>

Subject: Big Data Analytics Certificate & MSITM programs

Dear Dr. Dinev,

CEECS department is proposing to add new courses to the group of CS courses, for the Big Data Analytics Certificate & MSITM program. Please see attached the catalog changes.

Please let me know if you approve.

Thank you, Mihaela