FLORIDA ATLANTIC UNIVERSITY

NEW/CHANGE PROGRAM REQUEST
Graduate Programs

UGPC Approval _____
UFS Approval _____
Banner _____
Catalog _____

Department Computer and Electrical Eng and Computer Science

College Engineering and Computer Science

Program Name

MS in Information Technology and Management

☐ **New Program***

☑ **Change Program***

Effective Date
(TERM & YEAR)

Spring 2021

Please explain the requested change(s) and offer rationale below or on an attachment.

This MSITM program change request includes few course revisions and adding new courses:
CAP6616 Applied Machine Learning
ISM6427 Business Innovation with Artificial Intelligence

*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.

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

ITOM, College of Business

Approved by		***Date***
Department Chair	Hanqi Zhuang — Digitally signed by Hanqi Zhuang DN: cn=Hanqi Zhuang, o=FAU, ou=CEECS, email=zhuang@fau.edu, c=US Date: 2020.06.11 17:04:22 -04'00'	6/11/2020
College Curriculum Chair	Ramesh Teegavarapu — Digitally signed by Ramesh Teegavarapu DN: cn=Ramesh Teegavarapu, o=Florida Atlantic University, ou=Civil, Environmental and Geomatics Engineering, email=rteegava@fau.edu, c=US Date: 2020.06.12 07:27:02 -04'00'	6/12/2020
College Dean	Mihaela Cardei — Digitally signed by Mihaela Cardei DN: cn=Mihaela Cardei, o=Florida Atlantic University, ou, email=mcardei@fau.edu, c=US Date: 2020.06.14 14:50:38 -04'00'	6/14/2020
UGPC Chair		Sep 16, 2020
UGC Chair		Sep 16, 2020
Graduate College Dean		Sep 17, 2020
UFS President		
Provost		

Email this form and attachments to UGPC@fau.edu 10 days before the UGPC meeting.

Master of Science with Major in Information Technology and Management

Advanced Information Technology Concentration
Students are required to take the following three courses:

Software Engineering	CEN 5035
Theory and Implementation of the Database Systems	COP 6731
Management of Information Systems and Technology	ISM 6026
In addition, students need to take five electives from the following CEECS courses. Additional CEECS courses may be used as electives with prior approval of the CEECS advisor:	
Applied Machine Learning	CAP 6616
Data Mining and Machine Learning	CAP 6673
Computational Foundations of Artificial Intelligence	CAP 5625
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
~~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
Advanced Internet Systems	COP 6819
Mobile Application Development	COP 5675
The last two electives must be chosen from the following ITOM 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
Information Technology Sourcing Management	ISM 6509

Advanced Business Analytics	ISM 6405
Business Innovation with Artificial Intelligence	ISM 6427
Data Mining and Predictive Analytics	ISM 6136
Social Media and Web Analytics	ISM 6555
Mobile Apps for Business	ISM 6058
Data Management and Analysis with Excel	QMB 6303
Special Topics	ISM 6930

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 ITOM courses:	
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
Data Management and Analysis with Excel	QMB 6303
Business Innovation with Artificial Intelligence	ISM 6427
Special Topics	ISM 6930
In addition, students must take three electives from the following courses offered by the College of Engineering and Computer Science. Additional CEECS courses may be used as electives with prior approval of the CEECS advisor:	
Applied Machine Learning	CAP 6616
Data Mining and Machine Learning	CAP 6673
Computational Foundations of Artificial Intelligence	CAP 5625
Software Maintenance and Evolution	CEN 6027
Software Testing	CEN 6076
Computer Data Security	CIS 6370
Mobile Computing	CNT 6517

~~Object-Oriented Software Design~~	~~COP 5339~~
Theory and Implementation of Database Systems	COP 6731
Topics in Computer Science	COT 5930/COT 6930
Information Retrieval	CAP 6776
Natural Language Processing	CAP 6640
Introduction to Data Science	CAP 5768
Cloud Computing	CEN 5086
~~Cyber Security: Measurement and Data Analysis~~	~~CTS 6319~~
Software Engineering	CEN 5035
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

Computer Science Data Analytics Concentration
Students are required to take the following three courses offered by the CEECS department:

Software Engineering	CEN 5035
Theory and Implementation of the Database Systems	COP 6731
Introduction to Data Science	CAP 5768
In addition, students must take four CEECS electives, from which at least two are from the CEECS Data Analytics group.	
CEECS Data Analytics electives are listed below. Additional CEECS courses may be used in this group with prior approval of the CEECS advisor.	
Applied Machine Learning	CAP 6616
Data Mining and Machine Learning	CAP 6673
Introduction to Neural Networks	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

Other CEECS electives are listed below. Additional CEECS courses may be used as electives with prior approval of the CEECS advisor.	
Cloud Computing	CEN 5086
Computer Data Security	CIS 6370
Mobile App Development	COP 5675
Advanced Internet Systems	COP 6819
Sensor Networks and Smart Systems	CNT 5109
Computational Foundations of Artificial Intelligence	CAP 5625
The last three electives must be chosen from the following ITOM 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 Management and Analysis with Excel	QMB 6303
Data Analysis for Managers	QMB 6603
Business Innovation with Artificial Intelligence	ISM 6427
Special Topics	ISM 6930

Note: Students in this concentration may satisfy the ~~meet the~~ requirements for the Big Data Analytics Certificate. Follow up with the CEECS advisor ~~to apply~~ for more information about the certificate.

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
Business Innovation with Artificial Intelligence	ISM 6427
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 ITOM courses:	
Data Management and Analysis with Excel	QMB 6303
Information Technology Project and Change Management	ISM 6316
Information Technology Sourcing Management	ISM 6509
Web-Based Business Development	ISM 6508

Mobile Apps for Business	ISM 6058
Management of Information Assurance and Security	ISM 6328
Enterprise Information Technology Service Management	ISM 6368
Special Topics	ISM 6930
In addition, students must take three electives from the following courses offered by the College of Engineering and Computer Science: Additional CEECS courses may be used as electives with prior approval of the CEECS advisor:	
Applied Machine Learning	CAP 6616
Computational Foundations of Artificial Intelligence	CAP 5625
Data Mining and Machine Learning	CAP 6673
Information Retrieval	CAP 6776
Natural Language Processing	CAP 6640
Computational Advertising and Real-Time Data Analytics	CAP 6807
Social Network and Big Data Analytics	CAP 6315
Introduction to Neural Networks	CAP 5615
Deep Learning	CAP 6619
Data Mining for Bioinformatics	CAP 6546
Web Mining	CAP 6777
Advanced Data Mining and Machine Learning	CAP 6778
Big Data Analytics with Hadoop	CAP 6780
Computer Performance Modeling	CEN 6405
Introduction to Data Science	CAP 5768

From: Tamara Dinev <tdinev@fau.edu>
Sent: Thursday, July 30, 2020 3:11 PM
To: Mihaela Cardei <mcardei@fau.edu>
Cc: Hanqi Zhuang <zhuang@fau.edu>
Subject: RE: MSITM & Big Data Certificate revisions

Yes, done!

Best Regards:
Tamara
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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: Thursday, July 30, 2020 3:10 PM
To: Tamara Dinev <tdinev@fau.edu>
Cc: Hanqi Zhuang <zhuang@fau.edu>
Subject: Re: MSITM & Big Data Certificate revisions

Thank you Tamara. Attached are the revised documents. I will proceed with the approvals.

regards,
Mihaela

From: Tamara Dinev <tdinev@fau.edu>
Sent: Thursday, July 30, 2020 3:01 PM
To: Mihaela Cardei <mcardei@fau.edu>
Subject: RE: MSITM & Big Data Certificate revisions

Hi Mihaela:

It looks good. I apologize, I just double checked with Maria Jennings, and they came back with a slightly different number - ISM 6427 - for the Business Innovation with Artificial Intelligence.
So please go ahead and change just the last digit of the course, and we are good to go. No need to check with me again for this small edit

Best Regards:
Tamara
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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: Thursday, July 30, 2020 9:59 AM
To: Tamara Dinev <tdinev@fau.edu>
Cc: Hanqi Zhuang <zhuang@fau.edu>
Subject: MSITM & Big Data Certificate revisions

Hello Tamara,

could you please check the attached documents with revisions for the MSITM & Big Data Certificate and let us know if they look ok on your side.

thanks,
Mihaela