

 FLORIDA ATLANTIC UNIVERSITY	PROGRAM CHANGE REQUEST Graduate Programs	UGPC Approval _____ UFS Approval _____ Banner Posted _____ Catalog _____
	Department Computer & Electrical Eng. and Computer Sci. College Engineering and Computer Science	
Program Name MS with Major in Information Technology and Management	Effective Date <small>(TERM & YEAR)</small> SUMMER 2018	
Please explain the requested change(s) and offer rationale below or on an attachment This proposal requests updating the catalog: <ul style="list-style-type: none"> • Change terminology from "options" to "tracks" • Add 2 additional tracks: CS Data Analytics and Business Analytics • Update the course list in the Advanced Information Technology Track and the Information Technology Management Track, details provided in the attachment. 		
Faculty Contact/Email/Phone Dr. Mihaela Cardei, mcardei@fau.edu	Consult and list departments that may be affected by the change(s) and attach documentation ITOM, College of Business	
Approved by Department Chair <u>Mungu Endol</u> College Curriculum Chair <u>M. Cardei</u> College Dean <u>[Signature]</u> UGPC Chair _____ Graduate College Dean _____ UFS President _____ Provost _____	Date <u>1/25/2018</u> <u>1/31/2018</u> <u>1/31/2018</u> _____ _____ _____	

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
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College of Engineering and Computer Science

Computer & Electrical Engineering and Computer Science

Master of Science with Major in Information Technology and Management

The Master of Science with Major in Information Technology and Management (MSITM) is jointly offered by the Department of Computer & Electrical Engineering and Computer Science (CEECS) in the College of Engineering and Computer Science and the Department of Information Technology and Operations Management (ITOM) in the College of Business. Designed for highly motivated individuals with computing and/or managerial backgrounds, the program aims to prepare students for a management career in the area of information technology in organizations. To allow for maximum flexibility in career aspirations, students can select from four trackstwo options: Advanced Information Technology, emphasizing the technical aspect of organizational IT systems; and Information Technology Management, focusing on the management issues of IT in organizations; CS Data Analytics; and Business Analytics.

Admission Requirements

To be admitted to the MSITM program applicants must have:

1. An undergraduate degree in Computer Science, Information Engineering Technology or an IT-related field of study. Applicants with another undergraduate degree and documented work experience of two or more years in an IT function will be evaluated as well;
2. An undergraduate GPA of 3.0 or higher;
3. A combined score (verbal + quantitative) of at least 295 on the Graduate Record Examination (GRE) or a GMAT score of 500 or higher. GRE scores more than five years old are normally not acceptable;
4. International students from non-English-speaking countries must be proficient in written and spoken English as evidenced by a score of at least 500 (paper-based test) or 213 (computer-based test) or 79 (Internet-based test) on the Test of English as a Foreign Language (TOEFL) or a score of at least 6.0 on the International English Language Testing System (IELTS); and
5. Met other requirements of the FAU Graduate College.

Curriculum Requirements

Students are required to complete 33 graduate-level credits, or 11 three-credit courses, with a 3.0 GPA or better to graduate. Students in Advanced Information Technology and CS Data Analytics tracks will be awarded the degree by the College of Engineering and Computer Science, while those in Information Technology Management and Business Analytics tracks will have their degrees awarded by the College of Business. For more information about the Master of Science in Information Technology and Management degree program, call the Department of Computer & Electrical Engineering and Computer Science at 561-297-3482, or email ceecs@fau.edu.

Advanced Information Technology

Students are required to take the following four courses:

Software Engineering	CEN 5035
Object-Oriented Software Design	COP 5339
Data Mining and Machine Learning <u>OR</u>	CAP 6673
<u>Theory and Implementation of Database Systems</u>	<u>COP</u> <u>6731</u>
Management of Information Systems and Technology	ISM 6026

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In addition, students need to take five electives from the following CEECS courses:

<u>Data Mining and Machine Learning (if not counted in the required courses group)</u>	<u>CAP 6673</u>
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
<u>Wireless Networks</u>	<u>EEL 6594</u>
Information Retrieval	CAP 6776
Cloud Computing	CEN 5086
Theory and Implementation of Database Systems <u>(if not counted in the required courses group)</u>	COP 6731
Cyber Security: Measurement and Data Analysis	CTS 6319
<u>Computational Advertising and Real-Time Data Analytics</u>	<u>CAP 6807</u>
<u>Social Network and Big Data Analytics</u>	<u>CAP 6315</u>
<u>Foundations of Vision</u>	<u>CAP 6411</u>
<u>Sensor Networks and Smart Systems</u>	<u>CNT 5106</u>

The last two electives ~~can~~ **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
Data Mining and Predictive Analytics	ISM 6136
Social Media and Web Analytics	ISM 6555
Mobile Apps for Business	ISM 6058

Information Technology Management

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

Management of Information Systems and Technology	ISM 6026
Information Technology Project and Change Management	ISM 6316
Advanced Business Analytics	ISM 6405
Management of Information Assurance and Security	ISM 6328
Enterprise Information Technology Service Management	ISM 6368
Web-Based Business Development Electronic Commerce and Internet Business Applications	ISM 6508
Information Technology Sourcing Management	ISM 6509
Graduate Business Communication Applications	GEB 6215
<u>In addition, students need to take one elective from the following ITOM courses:</u>	
Introduction to Business Analytics and Big Data	ISM 6404
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
<u>In addition Finally,</u> students need to take three electives from the following courses offered by the College of Engineering and Computer Science:	
Data Mining and Machine Learning	CAP 6673
Software Maintenance and Evolution	CEN 6076
Software Testing	CEN 6076

Computer Data Security	CIS 6370
Computer Network Programming	CNT 5715
Mobile Computing	CNT 6517
Object-Oriented Software Design	COP 5339
Theory and Implementation of Database Systems	COP 6731
Topics in Computer Science	COT 5930
Wireless Networks	EEL 6591
Information Retrieval	CAP 6776
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 5106

CS Data Analytics

Students are required to take three courses:

Software Engineering	CEN 5035
Object-Oriented Software Design	COP 5339
Data Mining and Machine Learning OR	CAP 6673
Introduction to Neural Networks	COP 5615

In addition, students need to take five electives from the following CEECS courses:

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)	COP 5615
Social Networks and Big Data Analytics	CAP 6315
Deep Learning	CAP 6619
Data Mining for Bioinformatics	CAP 6771

<u>Information Retrieval</u>	<u>CAP 6776</u>
<u>Web Mining</u>	<u>CAP 6777</u>
<u>Advanced Data Mining and Machine Learning</u>	<u>CAP 6778</u>
<u>Big Data Analytics with Hadoop</u>	<u>CAP 6780</u>
<u>Computer Performance Modeling</u>	<u>CEN 6405</u>
<u>Computational Advertising and Real-Time Data Analytics</u>	<u>CAP 6807</u>
<u>The last three electives must be chosen from the following ITOM courses:</u>	
<u>Data Mining and Predictive Analytics</u>	<u>ISM 6136</u>
<u>Database Management Systems</u>	<u>ISM 6217</u>
<u>Introduction to Business Analytics and Big Data</u>	<u>ISM 6404</u>
<u>Advanced Business Analytics</u>	<u>ISM 6405</u>
<u>Social Media and Web Analytics</u>	<u>ISM 6555</u>
<u>Data Analysis for Managers</u>	<u>QMB 6603</u>

Business Analytics

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

<u>Management of Information Systems and Technology</u>	<u>ISM 6026</u>
<u>Information Technology Project and Change Management</u>	<u>ISM 6316</u>
<u>Introduction to Business Analytics and Big Data</u>	<u>ISM 6404</u>
<u>Data Mining and Predictive Analytics</u>	<u>ISM 6136</u>
<u>Advanced Business Analytics</u>	<u>ISM 6405</u>
<u>Social Media and Web Analytics</u>	<u>ISM 6555</u>
<u>Graduate Business Communication Applications</u>	<u>GEB 6215</u>
<u>In addition, students need to take one elective from the following ITOM courses:</u>	
<u>IT Sourcing Management</u>	<u>ISM 6509</u>
<u>Web Based Business Development</u>	<u>ISM 6508</u>
<u>Mobile Apps for Business</u>	<u>ISM 6058</u>
<u>Management of Information Assurance and Security</u>	<u>ISM 6328</u>

<u>Enterprise Information Technology Service Management</u>	<u>ISM 6368</u>
<p>Finally, students need to take three electives from the following courses offered by the College of Engineering and Computer Science:</p>	
<u>Data Mining and Machine Learning</u>	<u>CAP 6673</u>
<u>Information Retrieval</u>	<u>CAP 6776</u>
<u>Computational Advertising and Real-Time Data Analytics</u>	<u>CAP 6807</u>
<u>Social Network and Big Data Analytics</u>	<u>CAP 6315</u>
<u>Introduction to Neural Networks</u>	<u>CAP 5615</u>
<u>Deep Learning</u>	<u>CAP 6619</u>
<u>Data Mining for Bioinformatics</u>	<u>CAP 6771</u>
<u>Web Mining</u>	<u>CAP 6777</u>
<u>Advanced Data Mining and Machine Learning</u>	<u>CAP 6778</u>
<u>Big Data Analytics with Hadoop</u>	<u>CAP 6780</u>
<u>Computer Performance Modeling</u>	<u>CEN 6405</u>