

 FLORIDA ATLANTIC UNIVERSITY	NEW/CHANGE PROGRAM REQUEST Graduate Programs		UGPC Approval _____ UFS Approval _____ Banner _____ Catalog _____
	Department Information Technology and Operations Management College Business		
Program Name The Master of Science with Major in Information Technology and Management (MSITM)		☐ New Program* ☒ Change Program*	Effective Date (TERM & YEAR) Spring 2022
Please explain the requested change(s) and offer rationale below or on an attachment. 1. Updating the name of the Department of Electrical Engineering and Computer Science. The following change/updates are made to include new course in the program: 2. Adding ISM 6455, Blockchain and Digital Business Transformation, as an elective. 3. Updating the composition of required and elective courses for the Information Technology Management Concentration.			
*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. T. Dinev / tdinev@fau.edu / 7-3181		Consult and list departments that may be affected by the change(s) and attach documentation Computer Science, support letter attached	
Approved by Department Chair _____ College Curriculum Chair _____ College Dean <u>Ken Johnson</u> UGPC Chair _____ UGC Chair _____ Graduate College Dean _____ UFS President _____ Provost _____		Date <u>Sep 10, 2021</u> <u>Sept 20, 2021</u> <u>9/22/2021</u>	

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

Tamara Dinev

From: Hanqi Zhuang
Sent: Monday, September 13, 2021 6:16 PM
To: Tamara Dinev
Subject: Re: Curriculum housecleaning of MSITM

Dear Tamara,

These changes are fine to me. One suggestion, you may replace CEECS with EECS without deleting the acronym.

Thanks,
Hanqi

From: Tamara Dinev <tdinev@fau.edu>
Sent: Monday, September 13, 2021 4:43 PM
To: Hanqi Zhuang <zhuang@fau.edu>
Subject: Curriculum housecleaning of MSITM

Dear Dr. Zhuang:

I would like to ask if you have any concerns regarding the attached catalog minor changes of the MSITM program and the accelerated BBA to MSITM program:

Your department name is updated, as well as some business courses are re-arranged, including adding the newly created blockchain course and cleaning up a course listed both in required and elective in the business tracks. Please see attached.

Best Regards:
Tamara

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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 concentrations: Advanced Information Technology, emphasizing the technical aspect of organizational IT systems; Information Technology Management, focusing on the management issues of IT in organizations; Computer Science Data Analytics; and Business Analytics. (Department name change effective fall 2021.)

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. GRE or GMAT scores more than five years old are normally not acceptable. The GRE and the GMAT requirement is waived for any student who has a baccalaureate degree from either FAU's Department of ~~Computer & Electrical Engineering and Computer Science (CEECS)~~ or FAU's Department of Information Technology and Operations Management (ITOM) with a GPA of at least 3.25 (out of a possible 4.0) in the last 60 credits attempted prior to graduation;
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. Meet other requirements of the FAU Graduate College.

Degree Requirements

Students in the Advanced Information Technology and Computer Science Data Analytics concentrations are required to complete 30 graduate-level credits, or 10, 3-credit courses (5000 level or higher), with a 3.0 GPA or better to graduate. Students in the Information Technology Management and Business Analytics concentrations are required to complete 33 graduate-level credits, or 11, 3-credit courses (5000 level or higher), with a 3.0 GPA or better to graduate.

Students in the Advanced Information Technology and Computer Science Data Analytics concentrations will be awarded the degree by the College of Engineering and Computer Science, while those in the Information Technology Management and Business Analytics concentrations

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 Concentration (30 credits)

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 Department of Electrical Engineering and Computer Science CEECSEEC <u>SEEC</u> S courses. Additional CEECSEEC <u>SEEC</u> S department courses may be used as electives with prior approval of the CEECSEEC <u>SEEC</u> S advisor:	
Computational Foundations of Artificial Intelligence	CAP 5625
Mobile Application Development	CAP 5675
Introduction to Data Science	CAP 5768
Social Network and Big Data Analytics	CAP 6315
Foundations of Vision	CAP 6411
Applied Machine Learning	CAP 6610
Natural Language Processing	CAP 6640
Data Mining and Machine Learning	CAP 6673
Information Retrieval	CAP 6776
Advanced Data Mining and Machine Learning	CAP 6778
Computational Advertising and Real-Time Data Analytics	CAP 6807
Advanced Internet Systems	CAP 6819
Cloud Computing	CEN 5086
Software Maintenance and Evolution	CEN 6027
Software Testing	CEN 6076
Software Architecture and Patterns	CEN 6085
Computer Performance Modeling	CEN 6405
Computer Data Security	CIS 6370
Sensor Networks and Smart Systems	CNT 5109
Mobile Computing	CNT 6517
Video Communication	CNT 6885

Topics in Computer Science	COT 5930
Topics in Computer Science	COT 6930
The last two electives must be chosen from the following ITOM courses:	
Mobile Apps for Business	ISM 6058
Data Mining and Predictive Analytics	ISM 6136
Information Technology Project and Change Management	ISM 6316
Management of Information Assurance and Security	ISM 6328
Enterprise Information Technology Service Management	ISM 6368
Advanced Business Analytics	ISM 6405
Business Innovation with Artificial Intelligence	ISM 6427C
Web-Based Business Development	ISM 6508
Information Technology Sourcing Management	ISM 6509
Social Media and Web Analytics	ISM 6555
Blockchain and Digital Business Transformation	ISM 6455
Special Topics	ISM 6930
Data Management and Analysis with Excel	QMB 6303

Information Technology Management Concentration (33 credits)

Students are required to take the following seven six 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
Communication Strategies for Business Professionals and Core-Course Follow-Up	GEB 6215
Students must take one two elective from the following ITOM courses:	
Mobile Apps for Business	ISM 6058

Data Mining and Predictive Analytics	ISM 6136
Enterprise Information Technology Service Management	ISM 6368
Advanced Business Analytics	ISM 6405
Business Innovation with Artificial Intelligence	ISM 6427C
Social Media and Web Analytics	ISM 6555
Special Topics	ISM 6930
Data Management and Analysis with Excel	QMB 6303
Blockchain and Digital Business Transformation	ISM 6455
In addition, students must take three electives from the following courses offered by the College of Engineering and Computer Science. Additional Department of Electrical Engineering and Computer Science CEECSEECS courses may be used as electives with prior approval of the CEECSEECS advisor:	
Introduction to Neural Networks	CAP 5615
Computational Foundations of Artificial Intelligence	CAP 5625
Introduction to Data Science	CAP 5768
Social Network and Big Data Analytics	CAP 6315
Foundations of Vision	CAP 6411
Applied Machine Learning	CAP 6610
Natural Language Processing	CAP 6640
Data Mining and Machine Learning	CAP 6673
Information Retrieval	CAP 6776
Computational Advertising and Real-Time Data Analytics	CAP 6807
Software Engineering	CEN 5035
Cloud Computing	CEN 5086
Software Maintenance and Evolution	CEN 6027
Software Testing	CEN 6076
Software Architecture and Patterns	CEN 6085
Computer Data Security	CIS 6370
Sensor Networks and Smart Systems	CNT 5109
Mobile Computing	CNT 6517
Theory and Implementation of Database Systems	COP 6731
Topics in Computer Science	COT 5930, COT 6930



Computer Science Data Analytics **Concentration** (30 credits)

Students are required to take the following three courses offered by the ~~Computer and~~ Electrical Engineering and Computer Science (~~CEECSEEC~~SEEC) Department:

Introduction to Data Science	CAP 5768
Software Engineering	CEN 5035
Theory and Implementation of the Database Systems	COP 6731

In addition, students must take four ~~CEECSEEC~~SEEC department electives, at least two of which are from the ~~CEECSEEC~~SEEC Data Analytics group:

~~CEECSEEC~~SEEC Data Analytics electives are listed below. Additional ~~CEECSEEC~~SEEC department courses may be used with prior approval of the ~~CEECSEEC~~SEEC advisor.

Introduction to Neural Networks	CAP 5615
Social Network and Big Data Analytics	CAP 6315
Data Mining for Bioinformatics	CAP 6546
Applied Machine Learning	CAP 6610
Deep Learning	CAP 6619
Natural Language Processing	CAP 6640
Data Mining and Machine Learning	CAP 6673
Information Retrieval	CAP 6776
Web Mining	CAP 6777
Advanced Data Mining and Machine Learning	CAP 6778
Big Data Analytics with Hadoop	CAP 6780
Computational Advertising and Real-Time Data Analytics	CAP 6807
Computer Performance Modeling	CEN 6405

Other ~~CEECSEEC~~SEEC electives are listed below. Additional ~~CEECSEEC~~SEEC department courses may be used with prior approval of the ~~CEECSEEC~~SEEC advisor.

Computational Foundations of Artificial Intelligence	CAP 5625
Cloud Computing	CEN 5086
Computer Data Security	CIS 6370
Sensor Networks and Smart Systems	CNT 5109
Mobile Application Development	COP 5675
Advanced Internet Systems	COP 6819

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
Business Innovation with Artificial Intelligence	ISM 6427C
Social Media and Web Analytics	ISM 6555
Special Topics	ISM 6930
Data Management and Analysis with Excel	QMB 6303
Data Analysis for Managers	QMB 6603

Note: Students in this concentration meet the requirements for the [Big Data Analytics certificate](#). Follow up with the ~~CEEC~~[SEECS](#) advisor to apply for the certificate.

Business Analytics **Concentration** (33 credits)

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

Management of Information Systems and Technology	ISM 6026
Data Mining and Predictive Analytics	ISM 6136
Introduction to Business Analytics and Big Data	ISM 6404
Advanced Business Analytics	ISM 6405
Business Innovation with Artificial Intelligence	ISM 6427C
Social Media and Web Analytics	ISM 6555
Communication Strategies for Business Professionals and Core-Course Follow-Up	GEB 6215

Students must take one elective from the following ITOM courses:

Mobile Apps for Business	ISM 6058
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
Special Topics	ISM 6930
Data Management and Analysis with Excel	QMB 6303

Blockchain and Digital Business Transformation	ISM 6455
In addition, students must take three electives from the following courses offered by the College of Engineering and Computer Science. Additional CEECSECS department courses may be used as electives with prior approval of the CEECSECS advisor.	
Introduction to Neural Networks	CAP 5615
Computational Foundations of Artificial Intelligence	CAP 5625
Introduction to Data Science	CAP 5768
Social Network and Big Data Analytics	CAP 6315
Data Mining for Bioinformatics	CAP 6546
Applied Machine Learning	CAP 6610
Deep Learning	CAP 6619
Natural Language Processing	CAP 6640
Data Mining and Machine Learning	CAP 6673
Information Retrieval	CAP 6776
Web Mining	CAP 6777
Advanced Data Mining and Machine Learning	CAP 6778
Big Data Analytics with Hadoop	CAP 6780
Computational Advertising and Real-Time Data Analytics	CAP 6807
Computer Performance Modeling	CEN 6405