



## Summary of Changes:

1. ISM 6276 Managing AI Product Development added to the list of the ITOM electives for the MSITM-Advanced Information Technology Concentration
2. ISM 6276 Managing AI Product Development added to the list of the ITOM electives for the MSITM - Computer Science Data Analytics Concentration
3. ISM 6276 Managing AI Product Development and ISM 6146 Business Software Systems Development added to the list of electives for the MSITM - Information Technology Management Concentration
4. ISM 6276 Managing AI Product Development and ISM 6146 Business Software Systems Development added to the list of electives for the MSITM - Business Analytics Concentration

## INFORMATION TECHNOLOGY AND MANAGEMENT

### MASTER OF SCIENCE (M.S.)

#### Advanced Information Technology Concentration

#### Business Analytics Concentration

#### Computer Science Data Analytics Concentration

#### Cybersecurity Concentration

#### Information Technology Management Concentration

The Master of Science with Major in Information Technology and Management (MSITM) is jointly offered by the Department of Electrical Engineering and Computer Science (EECS) 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 five concentrations: Advanced Information Technology, Business Analytics, Computer Science Data Analytics, Cybersecurity, and Information Technology Management. The program is offered in person with the Business Analytics and the Information Technology Management concentrations offered in person and fully online.

#### Admission Requirements

To be admitted to the MSITM program applicants must have:

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;

An undergraduate GPA of 3.0 or higher;

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 Electrical Engineering and Computer Science (EECS) 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. GRE/GMAT is not required for admission to the Advanced Information Technology Concentration, Computer Science Data Analytics Concentration, and Cybersecurity Concentration;

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

Meet other requirements of the FAU Graduate College.

#### Degree Requirements

Students in all concentrations are required to complete 30 graduate credits, or ten, 3-credit courses (5000 level or higher), with a 3.0 GPA or better to graduate.

Students in the Advanced Information Technology, Computer Science Data Analytics, and Cybersecurity 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 Electrical Engineering and Computer Science at 561-297-3482, or email [ceecs@fau.edu](mailto: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 must take five electives from graduate courses with prefixes CAP, CDA, CEN, CIS, COP, COT and CNT offered by the Department of Electrical Engineering and Computer Science (EECS).*

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

Blockchain and Crypto <del>Assets</del> <a href="#">Assets</a> : Digital Business Transformation	ISM 6455
Web-Based Business Development	ISM 6508
Information Technology Sourcing Management	ISM 6509
Social Media and Web Analytics	ISM 6555
Special Topics	ISM 6930
Data Management and Analysis with Excel	QMB 6303
<a href="#">Managing AI Product Development</a>	<a href="#">ISM 6276</a>

Information Technology Management Concentration (30 credits)

Students are required to take the following 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
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 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
<a href="#">Managing AI Product Development</a>	<a href="#">ISM 6276</a>
<a href="#">Business Software Systems Development</a>	<a href="#">ISM 6146</a>
Blockchain and Crypto <del>Assets</del> : Digital Business Transformation	ISM 6455
Social Media and Web Analytics	ISM 6555
Special Topics	ISM 6930
Data Management and Analysis with Excel	QMB 6303

dition, students must take three electives from graduate courses with prefixes CAP, CDA, CEN, CIS, COP, COT and CNT offered by the Department of Electrical Engineering (EECS).

Computer Science Data Analytics Concentration (30 credits)

Students are required to take the following three courses offered by the Electrical Engineering and Computer Science (EECS) 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 EECS Department electives as follows: two graduate courses with the prefix CAP and two graduate courses with prefixes CAP, CDA, CEN, CIS, COP, COT and CNT.

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
<a href="#">Managing AI Product Development</a>	<a href="#">ISM 6276</a>

Note: Students in this concentration may satisfy the requirements for the Big Data Analytics certificate. Follow up with the EECS advisor to see if the student meets all the requirements for the certificate.

Business Analytics Concentration (30 credits)

Students are required to take the following six 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

Business Innovation with Artificial Intelligence	ISM 6427C
Advanced Business Analytics	ISM 6405 <b>or</b>
Social Media and Web Analytics	ISM 6555
Communication Strategies for Business Professionals and Core-Course Follow-Up	GEB 6215
<b>Students must take one elective from the following ITOM courses:</b>	
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
Blockchain and Crypto <del>Assets</del> Assets: Digital Business Transformation	ISM 6455
Web-Based Business Development	ISM 6508
Information Technology Sourcing Management	ISM 6509
Special Topics	ISM 6930
Data Management and Analysis with Excel	QMB 6303
<u>Managing AI Product Development</u>	<u>ISM 6276</u>
<u>Business Software Systems Development</u>	<u>ISM 6146</u>

*In addition, students must take three electives from the EECS Department as follows: two graduate courses with the prefix CAP and one graduate course with prefixes CAP, CDA, CEN, CIS, COP, COT and CNT.*

#### Cybersecurity 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

**Students must take three cybersecurity courses from the list below. Course substitution is allowed with the advisor's prior approval.**

Cryptographic Engineering	CDA 5326
Practical Aspects of Modern Cryptography	CIS 5371
Computer Data Security	CIS 6370
Distributed Systems Security	CIS 6375
Cryptocurrencies and Blockchain Technologies	CIS 6730
Secret Sharing Protocols	COT 6427
Data Analysis and Modeling for Cybersecurity	CAI 6803

**Students must take two Electrical Engineering and Computer Science (EECS) courses with prefixes of CAP, CDA, CEN, CIS, COP, COT, CTS or CNT offered by the EECS department.**

**The last two electives must be chosen from the following Information Technology and Operations Management (ITOM) courses:**

Management of Information Assurance and Security	ISM 6328
Digital Forensics Management	ISM 6376
Business Innovation with Artificial Intelligence	ISM 6427C
Blockchain and Crypto Assets: Digital Business Transformation	ISM 6455
Special Topics	ISM 6930

## Tamara Dinev

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**From:** Waseem Asghar  
**Sent:** Thursday, August 29, 2024 11:21 AM  
**To:** Tamara Dinev  
**Cc:** Hari Kalva; Mihaela Cardei; Raquel Assis  
**Subject:** Re: New Courses from EECS

Dear Tamara,  
The catalog changes for MSITM looks fine to us.

Thanks,  
Waseem

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Regards,  
Waseem Asghar, Ph.D.,  
Associate Chair and Professor,  
Department of Electrical Engineering and Computer Science,  
Department of Biomedical Engineering (Affiliate Appointment),  
Florida Atlantic University,  
777 Glades Road, EE 96/Rm 435, Boca Raton, FL 33431  
Ph: 561.297.3728  
Fax: 561.297.2800  
<http://faculty.eng.fau.edu/asghar/>

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**From:** Tamara Dinev <tdinev@fau.edu>  
**Sent:** Wednesday, August 28, 2024 5:47 PM  
**To:** Waseem Asghar <wasghar@fau.edu>  
**Cc:** Hari Kalva <hkalva@fau.edu>; Mihaela Cardei <mcardei@fau.edu>; Raquel Assis <rassis@fau.edu>  
**Subject:** RE: New Courses from EECS

Hello Waseem:

Please find attached. The summary of changes is given in the beginning.

I will appreciate a quick feedback, in order for us to catch the track of approvals by the end of the semester.

Thank you in advance

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

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**From:** Waseem Asghar <wasghar@fau.edu>  
**Sent:** Wednesday, August 28, 2024 3:36 PM  
**To:** Tamara Dinev <tdinev@fau.edu>  
**Cc:** Hari Kalva <hkalva@fau.edu>; Mihaela Cardei <mcardei@fau.edu>; Raquel Assis <rassis@fau.edu>  
**Subject:** Re: New Courses from EECS

Dear Tamara,

I looked into the catalog and noted that EECS does not have any specific courses listed as elective, instead course prefix are provided which are very general and covers our new course electives. In short, there are no catalog changes needed for EECS courses.

As ITOM has listed specific courses, I believe ITOM should move forward with catalog changes. Can you please add new ITOM courses in the MSITM electives (with track changes on) and share with us the proposed catalog changes. EECS will quick review them and get back to you.

Please let me know if you have any questions.

Thanks,  
Waseem

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Regards,  
Waseem Asghar, Ph.D.,  
Associate Chair and Professor,  
Department of Electrical Engineering and Computer Science,  
Department of Biomedical Engineering (Affiliate Appointment),  
Florida Atlantic University,  
777 Glades Road, EE 96/Rm 435, Boca Raton, FL 33431  
Ph: 561.297.3728  
Fax: 561.297.2800  
<http://faculty.eng.fau.edu/asghar/>

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**From:** Tamara Dinev <[tdinev@fau.edu](mailto:tdinev@fau.edu)>  
**Sent:** Monday, August 26, 2024 7:46 AM  
**To:** Waseem Asghar <[wasghar@fau.edu](mailto:wasghar@fau.edu)>  
**Cc:** Hari Kalva <[hkalva@fau.edu](mailto:hkalva@fau.edu)>; Mihaela Cardei <[mcardei@fau.edu](mailto:mcardei@fau.edu)>  
**Subject:** RE: New Courses from EECS

Waseem,

The approval levels will also want to see the new courses listed in the programs, with the "Track changes" on.

If you plan to list these courses in the MSITM, let's do this in one documents with both yours and mine changes. Otherwise, we risk the items tabled.  
Please consult with Mihaela, she perfectly knows.

Let me know. If you want to go with it, send your Word document with your changes, I will add mine, and then we can coordinate to submit together

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

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**From:** Waseem Asghar <[wasghar@fau.edu](mailto:wasghar@fau.edu)>  
**Sent:** Thursday, August 22, 2024 3:32 PM  
**To:** Tamara Dinev <[tdinev@fau.edu](mailto:tdinev@fau.edu)>  
**Cc:** Hari Kalva <[hkalva@fau.edu](mailto:hkalva@fau.edu)>; Mihaela Cardei <[mcardei@fau.edu](mailto:mcardei@fau.edu)>  
**Subject:** RE: New Courses from EECS

Thank you

Regards,  
Waseem Asghar

On Aug 22, 2024 3:30 PM, Tamara Dinev <[tdinev@fau.edu](mailto:tdinev@fau.edu)> wrote:  
Hello Waseem:

ITOM has no objections on creating the new courses.

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

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**From:** Waseem Asghar <[wasghar@fau.edu](mailto:wasghar@fau.edu)>  
**Sent:** Tuesday, April 9, 2024 4:13 PM  
**To:** Tamara Dinev <[tdinev@fau.edu](mailto:tdinev@fau.edu)>  
**Cc:** Hari Kalva <[hkalva@fau.edu](mailto:hkalva@fau.edu)>; Mihaela Cardei <[mcardei@fau.edu](mailto:mcardei@fau.edu)>  
**Subject:** RE: New Courses from EECS  
**Importance:** High

Dear Dr. Dinev,

Hope you are doing well. The Department of Electrical Engineering and Computer Science (EECS) has the following three new courses that we are developing to include in our graduate course offerings.

CIS5645\_IntroductionToCloudSecurity  
CEN6091\_AdvancedSoftwareEngineeringInPractice  
CEN6055\_SoftwareEngineeringProjectManagement

We are looking for your review and approval for these courses. Please see the attached syllabus and let us know if you have any questions.

Thank you

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Regards,  
Waseem Asghar, Ph.D.,  
Associate Professor, Director of Graduate Programs  
Department of Electrical Engineering and Computer Science,  
Department of Biological Sciences (Courtesy Appointment),  
Florida Atlantic University,  
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