

Business Intelligence Track in the Information Technology Major

The Information Technology (IT) major is a jointly offered program between the College of Management (CM) and the College of Science and Mathematics (CSM) at the University of Massachusetts Boston. The IT major consists of a common core of ten courses, a track of four to six courses in a particular area of specialization (the business intelligence track requires five courses), a common capstone course, and three professional electives.

Career Paths

The IT major is designed to offer a top-notch program that addresses the Commonwealth's IT workforce needs through collaboration between CM and CSM. This degree provides a pathway from the bachelor's degree to IT positions in the public and private sectors as well as for-profit and nonprofit organizations. Exercises assigned throughout the IT major are designed to simulate real-world experience; collaboration, competence, and outcomes assessment are the hallmark characteristics of the program.

Business Intelligence (BI) is the technology that companies such as Amazon.com and Google use to take advantage of the enormous amount of data they collect and analyze. It is the technology with which Amazon.com knows what book to recommend you every time you login, Google knows how to rank the pages you are searching for, and banks decide whether to approve loan applications almost instantly. As organizations increasingly have to deal with "big data," the number of job openings and the need for skilled professionals in this field will continue to increase.

Advising Notes

- College of Management students should see general advising from the Academic and Career Engagement and Success Center until they have earned 60 credits. Once CM IT major have earned 60 or more credits, they will be advised in the College of Management Undergraduate Program Office. Advising for degree exceptions and policy overrides should go through the advising office for the college in which the student is enrolled (CM students should go to the College of Management Undergraduate Program Office M-5-610).
- Students should plan to take the track courses over the course of two years (four semesters) to ensure a wide selection of required and elective courses in the track. Some track courses may be offered once a year and are subject to sequencing due to prerequisites, making this time allowance necessary.
- The prerequisites for these courses are strictly enforced; students should plan their schedule early and carefully.

Courses

Five courses (15 credits) in total are required to complete the Business Intelligence Track

Take Three of the following Essential Courses

IT 370 Business Intelligence
IT 471 Data Warehousing

IT 472 Data Mining
MSIS 415 Advanced Coding for Analytics

Take Two of the Following Elective Courses

IT 360 Enterprise Software
IT 428L Information System Security
IT 456 Storage Management
IT 460 Integration Methodologies and Tools
IT 461L Systems Analysis and Design

Currently inactive elective courses:

*MSIS 422 Decision Support Systems
MSIS 426 E-Business and E-Commerce
MSIS 427 Knowledge Management*

Computer Forensics Track in the Information Technology Major

The Information Technology (IT) major is a jointly offered program between the College of Management (CM) and the College of Science and Mathematics (CSM) at the University of Massachusetts Boston. The IT major consists of a common core of ten courses, a track of four to six courses in a particular area of specialization (the computer forensics track requires five courses), a common capstone course, and three professional electives.

Career Paths

The IT major is designed to offer a top-notch program that addresses the Commonwealth's IT workforce needs through collaboration between CM and CSM. This degree provides a pathway from the bachelor's degree to IT positions in the public and private sectors as well as for-profit and nonprofit organizations. Exercises assigned throughout the IT major are designed to simulate real-world experience; collaboration, competence, and outcomes assessment are the hallmark characteristics of the program.

Computer Forensics (CF) is a discipline of forensic science that combines elements of law and information technology to collect and analyze data from computer systems, networks, wireless communications, and storage devices in a way that is admissible as evidence in a court of law. CF is also the process of using scientific knowledge for collecting, analyzing, and presenting digital evidence to the courts. With the increasing use of computers to commit crimes and growing demand for computer-based data in civil proceedings, a need has rapidly developed for forensic experts to extract useful information from computer evidence.

Advising Notes

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- Students should plan to take the track courses over the course of two years (four semesters) to ensure a wide selection of required and elective courses in the track. Some track courses may be offered once a year and are subject to sequencing due to prerequisites, making this time allowance necessary.
- The prerequisites for these courses are strictly enforced; students should plan their schedule early and carefully.

Courses

Five courses (15 credits) in total are required to complete the Computer Forensics Track.

Choose five of the following six courses:

IT 220	Computer Forensics I
IT 221	Computer Forensics II
IT 420	Network and Mobile Forensics
IT 421	Malware Analysis
SOCIOL 104	Intro to Criminal Justice
SOCIOL 364	Cyber Crime

Information Architecture Track in the Information Technology Major

The Information Technology (IT) major is a jointly offered program between the College of Management (CM) and the College of Science and Mathematics (CSM) at the University of Massachusetts Boston. The IT major consists of a common core of ten courses, a track of four to six courses in a particular area of specialization (the information architecture track requires four courses), a common capstone course, and three professional electives.

Career Paths

The IT major is designed to offer a top-notch program that addresses the Commonwealth's IT workforce needs through collaboration between the College of Management (CM) and the College of Science and Mathematics (CSM). This degree provides a pathway from the bachelor's degree to IT positions in the public and private sectors as well as for-profit and nonprofit organizations. Exercises assigned throughout the IT major are designed to simulate real-world experience; collaboration, competence, and outcomes assessment are the hallmark characteristics of the program.

Information Architecture (IA) track is the discipline of designing and implementing information systems that support and enable business strategies and operations. The information architecture track addresses topics covering concepts such as usability (including accessibility, experience design, interaction design, and user interface design), information design (including information find ability and content management), component-based design (including web services, services oriented architecture, process oriented architecture, and cloud computing), and enterprise systems. As organizations are relying on increasingly more complex information systems to compete and survive, they are in dire need of IT professionals who understand how to design, deploy, and manage an efficient IT architecture to support their information systems.

Advising Notes

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- Students should plan to take the track courses over the course of two years (four semesters) to ensure a wide selection of required and elective courses in the track. Some track courses may be offered once a year and are subject to sequencing due to prerequisites, making this time allowance necessary.
- The prerequisites for these courses are strictly enforced; students should plan their schedule early and carefully.

Courses

Four courses (12 credits) in total are required to complete the Information Architecture Track

Take Four Required Courses:

- IT 360 Enterprise Software
- IT 428L Information System Security
- IT 460 Integration Methodologies and Tools
- IT 461L Systems Analysis and Design

System Administration Track in the Information Technology Major

The Information Technology (IT) major is a jointly offered program between the College of Management (CM) and the College of Science and Mathematics (CSM) at the University of Massachusetts Boston. The IT major consists of a common core of ten courses, a track of four to six courses in a particular area of specialization (the system administration track requires four courses), a common capstone course, and three professional electives.

Career Paths

The IT major is designed to offer a top-notch program that addresses the Commonwealth's IT workforce needs through collaboration between the College of Management (CM) and the College of Science and Mathematics (CSM). This degree provides a pathway from the bachelor's degree to IT positions in the public and private sectors as well as for-profit and nonprofit organizations. Exercises assigned throughout the IT major are designed to simulate real-world experience; collaboration, competence, and outcomes assessment are the hallmark characteristics of the program.

System Administration (SA) track focuses on the deployment and maintenance of computer systems and networks. The system administration track concerns issues related to the selection, installation, configuration and maintenance of Linux- and Windows-based systems (including shell programming and scripting, heterogeneous systems, remote management, the legal issues of system administration, as well as the design and implementation of policies and automated administration regimes) and Internet-working environments. As organizations keep investing in their information systems, talents are needed to help design, deploy, manage, and safeguard these systems.

Advising Notes

- College of Management students should see general advising from the Academic and Career Engagement and Success Center until they have earned 60 credits. Once CM IT major have earned 60 or more credits, they will be advised in the College of Management Undergraduate Program Office. Advising for degree exceptions and policy overrides should go through the advising office for the college in which the student is enrolled (CM students should go to the College of Management Undergraduate Program Office M-5-610).
- Students should plan to take the track courses over the course of two years (four semesters) to ensure a wide selection of required and elective courses in the track. Some track courses may be offered once a year and are subject to sequencing due to prerequisites, making this time allowance necessary.
- The prerequisites for these courses are strictly enforced; students should plan their schedule early and carefully.

Courses

Four courses (12 credits) in total are required to complete the System Administration Track

Take Four Required Courses:

- IT 341 Introduction to System Administration
- IT 442 Windows System Administration
- IT 443 Network Security Administration
- IT 444 Network Security Administration II