INFORMATION TECHNOLOGY, BS

Banner Code: EC-BS-INFT

Academic Advising

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The Information Technology, BS prepares students to apply IT to support business processes. The degree produces graduates with strong problem-solving, writing, and communication skills who successfully compete for technical employment and are prepared for advanced study. The objectives of the B.S. program in Information Technology relate to the expected abilities of the graduates three to five years after graduation.

The objectives include:

1. Be employed in a position in which they have successfully used their information technology skills as evidenced by achieving improved organizational objectives
2. Progress through increasing levels of responsibility in the workplace
3. Demonstrate ethical, social and professional responsibility consistent with organizational values
4. Work effectively in teams, whether as a participant or as a leader
5. Grow through self-study, continuing education and professional development relevant to their profession

The program can be successfully completed in eight full-time semesters with an average of 15 credits each semester. It is also possible for students to complete the degree on a part-time basis. The 120-credit degree requirement consists of Mason Core (http://catalog.gmu.edu/mason-core/) requirements, IT foundation and core courses, and courses required for the chosen IT concentration. At least 30 credits toward the BS degree must be earned at Mason, and at least 45 credits must be at or above the 300 level. Upper division courses in the program are taught at the Science and Technology campus, where many Department of Information Sciences and Technology faculty offices are located.

The bachelor's program in Information Technology is accredited by the Computing Accreditation Commission of ABET, http://www.abet.org.

Admissions & Policies

Admissions

Students who meet Mason's general eligibility requirements may apply for admission to the IT major. Admission is based on the appropriateness of the student's academic objectives and the likelihood of the student benefiting from the program. Preference in admission is given to students who have four years of high school mathematics, including precalculus.

Policies

For policies governing all undergraduate degrees, see AP.5 Undergraduate Policies (http://catalog.gmu.edu/policies/academic/undergraduate-policies/).

Change of Major

Mason students considering a change of major to Information Technology must have a minimum GPA of 3.00 in completed courses from the following list:IT 102 Discrete Structures or MATH 125 Discrete Mathematics I (Mason Core) (http://catalog.gmu.edu/mason-core/), IT 104 Introduction to Computing (Mason Core) (http://catalog.gmu.edu/mason-core/) or IT 191 Review of Computing Fundamentals, IT 105 IT Architecture Fundamentals, IT 106 Introduction to IT Problem Solving Using Computer Programming or IT 196 Review of IT Problem Solving Using Computer Programming or IT 109 Introduction to Computer Programming or CS 112 Introduction to Computer Programming (Mason Core) (http://catalog.gmu.edu/mason-core/), IT 206 Object Oriented Techniques for IT Problem Solving or IT 209 Introduction to Object Oriented Programming or CS 211 Object-Oriented Programming, IT 216 Systems Analysis and Design, IT 207 Applied IT Programming, IT 213 Multimedia and Web Design or IT 193 Review of Multimedia and Web Design, IT 214 Database Fundamentals or IT 194 Review of Database Fundamentals, and IT 223 Information Security Fundamentals, and a grade of C or better in IT 106 Introduction to IT Problem Solving Using Computer Programming or IT 109 Introduction to Computer Programming or IT 196 Review of IT Problem Solving Using Computer Programming or CS 112 Introduction to Computer Programming (Mason Core) (http://catalog.gmu.edu/mason-core/).

Note: IT courses at the 300 and 400 level are restricted to students who have declared an Information Technology major, minor, or undergraduate certificate, and to students in the BAS or BIS program. IT 293 Applied IT: Junior Transition and IT 343 IT Project Management are restricted to students who have declared the Information Technology, BS major.

Advanced Study

Mason offers students the ability to complete both BS and MS degrees in a shorter time through an Accelerated Masters (MS) program. Choosing to pursue an accelerated MS may affect a student's choice of courses in the BS program. Students should consult with an advisor for assistance.

Grades

Students must have a C or better in any course that satisfies a prerequisite for an IT course. To graduate with the BS in Information Technology, students must have a GPA of 2.75 or better across the IT foundation, core, capstone, and concentration courses. Additionally, students must have a C or better in their foundation, core, capstone, and concentration courses. Furthermore, students must have a B or better in gateway courses for the respective concentration.

Course Repeat Policy

In addition to the University's Undergraduate Course Repeat Policy, the following courses listed have additional repeat restrictions:

- A student who has taken IT 106 twice may not take IT 109 for their third attempt, nor will they be permitted to start over with three attempts of IT 109 in lieu of taking IT 106.

- A student who has taken IT 109 twice may not take IT 106 for their third attempt, nor will they be permitted to start over with three attempts of IT 106 in lieu of taking IT 109.
- A student who has taken IT 206 twice may not take IT 209 for their third attempt, nor will they be permitted to start over with three attempts of IT 209 in lieu of taking IT 206.
- A student who has taken IT 209 twice may not take IT 206 for their third attempt, nor will they be permitted to start over with three attempts of IT 206 in lieu of taking IT 209.
- A student who has taken IT 102 Discrete Structures twice may not take MATH 125 Discrete Mathematics I (Mason Core) for their third attempt, nor will they be permitted to start over with three attempts of MATH 125 in lieu of taking IT 102.
- A student who has taken MATH 125 twice may not take IT 102 for their third attempt, nor will they be permitted to start over with three attempts of IT 102 in lieu of taking MATH 125.
- A student who has taken MATH 108 twice may not take MATH 113 for their third attempt, nor will they be permitted to start over with three attempts of MATH 113 in lieu of taking MATH 108.
- A student who has taken MATH 113 twice may not take MATH 108 for their third attempt, nor will they be permitted to start over with three attempts of MATH 108 in lieu of taking MATH 113.

Corequisites

Corequisites must be completed successfully prior to or at the same time as the course for which it is a corequisite.

- (MATH 108 or MATH 113 or MATH 124 or HNRT 225) is a corequisite for IT 102. If a student drops or withdraws from MATH 108 or MATH 113 or MATH 124 or HNRT 225, they will also be dropped/withdrawn from IT 102, if the prerequisites are not otherwise met.
- (IT 102 or MATH 125) is a corequisite for (IT 106 or IT 109). If a student drops or withdraws from IT 102 or MATH 125, they will also be dropped/withdrawn from IT 106 or IT 109, if the prerequisites are not otherwise met.
- IT 300 is a corequisite for IT 341. If a student drops or withdraws from IT 300, they will also be dropped/withdrawn from IT 341, if the prerequisites are not otherwise met.
- IT 207 is a corequisite forIT 369. If a student drops or withdraws from IT 207, they will also be dropped/withdrawn from IT 369, if the prerequisites are not otherwise met.
- IT 369 is a corequisite for IT 462. If a student drops or withdraws from IT 369, they will also be dropped/withdrawn from IT 462, if the prerequisites are not otherwise met.

Termination from the Major

No math, science, or College of Engineering and Computing course that is required for the major may be attempted more than three times. Those students who do not successfully complete such a course within three attempts will be terminated from the major. Undeclared students in the College of Engineering and Computing who do not successfully complete a course required for a College of Engineering and Computing major within three attempts will also be terminated.

In addition, students in the College of Engineering and Computing with evidence of continued failure to make adequate progress toward declaring or completing a College of Engineering and Computing major will be terminated from the school. Adequate progress is determined by the major program. For more information, see AP.5.2.4 Termination from the Major (https://catalog.gmu.edu/policies/academic/undergraduate-policies/#ap-5-2-4).

Once a student has attempted one of these courses twice unsuccessfully, the third attempt must be no later than the next semester of enrollment, excluding summers. Failure to take the course at that time will result in termination from the major. A third attempt of a College of Engineering and Computing course requires support by the student's major department as well as permission by the department offering the course. This permission is not guaranteed. If the student is unable to take the course when required, the student may request an extension to a future semester; extensions require approval of the student's advisor, their department, and the Associate Dean for Undergraduate Programs. The deadline for extension requests is the add deadline for the semester in which the course is required.

Students who have been terminated from a College of Engineering and Computing major may not register for a College of Engineering and Computing course without permission of the department offering the course. This applies to all undergraduate courses offered by the College of Engineering and Computing except IT 104 Introduction to Computing (Mason Core) (http://catalog.gmu.edu/mason-core/) and STAT 250 Introductory Statistics I (Mason Core) (http://catalog.gmu.edu/mason-core/).

A student may not declare any major in the College of Engineering and Computing if the student has previously met the termination criteria for that major at any time, regardless of what the student's major was at the time the courses were taken.

Requirements

Degree Requirements

Total credits: 120

Foundation Courses

Code	Title	Credits
IT 102	Discrete Structures	3
or MATH 125	Discrete Mathematics I (Mason Core) (http://catalog.gmu.edu/mason-core/)	
IT 104	Introduction to Computing (Mason Core) (http://catalog.gmu.edu/mason-core/)	3
IT 105	IT Architecture Fundamentals	3
IT 106	Introduction to IT Problem Solving Using Computer Programming	3
or IT 109	Introduction to Computer Programming	
IT 206	Object Oriented Techniques for IT Problem Solving	3
or IT 209	Introduction to Object Oriented Programming	
IT 216	Systems Analysis and Design	3
STAT 250	Introductory Statistics I (Mason Core) (http://catalog.gmu.edu/mason-core/)	3
Total Credits		21

Core Courses

Code	Title	Credits
IT 207	Applied IT Programming	3
IT 213	Multimedia and Web Design	3

IT 214	Database Fundamentals	3
IT 223	Information Security Fundamentals	3
IT 300	Modern Telecommunications	3
IT 304	IT in the Global Economy	3
IT 341	Data Communications and Network Principles	3
IT 342	Operating Systems Fundamentals	3
IT 343	IT Project Management	3
MBUS 300	Accounting in a Global Economy	3
SYST 469	Human Computer Interaction	3
Total Credits		33

Two-Semester Sequence of Approved Capstone Design Courses

Code	Title	Credits
IT 492	Senior Design Project I (Mason Core) (http://catalog.gmu.edu/mason-core/)	3
IT 493	Senior Design Project II (Mason Core) (http://catalog.gmu.edu/mason-core/)	4
Total Credits		7

Information Technology Concentrations

Students choose one of six concentrations from the list below. To be eligible to choose a concentration, a student must have a B or better grade in the concentration's gateway course. Students must satisfy all prerequisites and other requirements in order to take a concentration course, regardless of declared concentration.

Concentration Gateway Courses

Code	Title	Credits
Database Technology and Programming (DTP)		
IT 206	Object Oriented Techniques for IT Problem Solving	3
or IT 209	Introduction to Object Oriented Programming	
IT 214	Database Fundamentals	3
or IT 194	Review of Database Fundamentals	
Health Information Technology (HIT)		
IT 214	Database Fundamentals	3
or IT 194	Review of Database Fundamentals	
Cyber Security (CYBR)		
IT 223	Information Security Fundamentals	3
Networking and Telecommunications (NTEL)		
IT 341	Data Communications and Network Principles	3
Web Application Development (WADV)		
IT 213	Multimedia and Web Design	3
or IT 193	Review of Multimedia and Web Design	
Cloud Computing (CCG)		
IT 341	Data Communications and Network Principles	3

Concentration Requirements:
To fulfill the requirements for a concentration, students need 15 credits made up of four courses from their chosen concentration and a fifth course chosen from any of the six concentrations. Students may choose to have two concentrations. To be eligible, the student must have a B or better in the gateway course for each concentration. Students must satisfy all prerequisites and other requirements in order to take a concentration course, regardless of declared concentration.

Dual Concentration Requirements:
If two concentrations are declared, the student must take four courses in each concentration, for a total of eight different concentration courses, and a total of 12 credits per concentration, with no overlap between the two concentrations.

Concentrations

- Database Technology and Programming (DTP)
- Health Information Technology (HIT)
- Cyber Security (CYBR)
- Network and Telecommunications (NTEL)
- Web Application Development (WADV)
- Cloud Computing (CCG)

Concentration in Database Technology and Programming (DTP)

Code	Title	Credits
Required Courses		
IT 306	Data Structures and Algorithms in Java	3
or IT 309	Data Structures and Algorithms in Python	
IT 314	Database Programming	3
Select two courses from the following:		6
IT 315	Mobile Development	
IT 322	Health Data Challenges	
IT 369	Data and Application Security	
IT 390	Rapid Development of Scalable Cloud Applications	
IT 409	Python Web Programming	
IT 410	Web Programming	
IT 414	Database Administration	
IT 416	Machine Learning for Information Sciences	
Select one additional course from this or any other concentration within this degree program		3
Total Credits		15

Dual Concentration Requirements for Data Technology and Programming (DTP)
Students declaring more than one concentration in this major should use the following requirements for their Concentration in Data Technology and Programming:

Code	Title	Credits
Required Courses		
IT 306	Data Structures and Algorithms in Java	3
or IT 309	Data Structures and Algorithms in Python	
IT 314	Database Programming	3
Select two courses from the following:		6
IT 315	Mobile Development	
IT 322	Health Data Challenges	
IT 369	Data and Application Security	
IT 390	Rapid Development of Scalable Cloud Applications	
IT 409	Python Web Programming	

IT 410	Web Programming	
IT 414	Database Administration	
IT 416	Machine Learning for Information Sciences	
Total Credits		12

Concentration in Health Information Technology (HIT)

Code	Title	Credits
Select four courses from the following:		12
HAP 360	Introduction to Health Information Systems	
IT 322	Health Data Challenges	
IT 324	Health Information Technology Fundamentals	
IT 390	Rapid Development of Scalable Cloud Applications	
STAT 362	Introduction to Computer Statistical Packages	
Select one additional course from this or any other concentration within this degree program		3
Total Credits		15

Dual Concentration Requirements for Health Information Technology (HIT)

Students declaring more than one concentration in this major should use the following requirements for their Concentration in Health Information Technology:

Code	Title	Credits
Select four courses from the following:		12
HAP 360	Introduction to Health Information Systems	
IT 322	Health Data Challenges	
IT 324	Health Information Technology Fundamentals	
IT 390	Rapid Development of Scalable Cloud Applications	
STAT 362	Introduction to Computer Statistical Packages	
Total Credits		12

Concentration in Cyber Security (CYBR)

Code	Title	Credits
Select four courses from the following:		12
IT 352	Security Administration of Linux Systems	
IT 353	Information Defense Technologies	
IT 357	Computer Crime, Forensics, and Auditing	
IT 366	Network Security	
IT 369	Data and Application Security	
IT 425	Election Security	
IT 429	Security Accreditation of Information Systems	
IT 462	Applied Cyber Threat Analysis	
IT 466	Foundations of Cryptography and Security	
IT 467	Network Defense	
Select one additional course from this or any other concentration within this degree program		3
Total Credits		15

Dual Concentration Requirements for Cyber Security (CYBR)

Students declaring more than one concentration in this major should use the following requirements for their Concentration in Cyber Security:

Code	Title	Credits
Select four courses from the following:		12
IT 352	Security Administration of Linux Systems	
IT 353	Information Defense Technologies	
IT 357	Computer Crime, Forensics, and Auditing	
IT 366	Network Security	
IT 369	Data and Application Security	
IT 425	Election Security	
IT 429	Security Accreditation of Information Systems	
IT 462	Applied Cyber Threat Analysis	
IT 466	Foundations of Cryptography and Security	
IT 467	Network Defense	
Total Credits		12

Concentration in Network and Telecommunications (NTEL)

Code	Title	Credits
Select four courses from the following:		12
ECE 301	Digital Electronics	
IT 366	Network Security	
IT 442	Cloud Infrastructure	
IT 445	Advanced Networking Principles	
IT 455	Wireless Communications and Networking	
IT 484	Voice Communications Technologies	
IT 488	Fundamentals of Satellite Communications	
Select one additional course from this or any other concentration		3
Total Credits		15

Dual Concentration Requirements for Network and Telecommunications (NTEL)

Students declaring more than one concentration in this major should use the following requirements for their Concentration in Network and Telecommunications:

Code	Title	Credits
Select four courses from the following:		12
ECE 301	Digital Electronics	
IT 366	Network Security	
IT 442	Cloud Infrastructure	
IT 445	Advanced Networking Principles	
IT 455	Wireless Communications and Networking	
IT 484	Voice Communications Technologies	

IT 488	Fundamentals of Satellite Communications	
Total Credits		12

Concentration in Web Application Development (WADV)

Code	Title	Credits
Select four courses from the following:		12
IT 315	Mobile Development	
IT 331	Web I: Web Development	
IT 332	Web Server Administration	
IT 335	Web Development using Content Management Systems	
IT 390	Rapid Development of Scalable Cloud Applications	
IT 415	Information Visualization	
IT 431	Web II: Advanced Web Development	
IT 479	Digital Media and Web Design Capstone	
Select one additional course from this or any other concentration		3
Total Credits		15

Dual Concentration Requirements for Web Application Development (WADV)

Students declaring more than one concentration in this major should use the following requirements for their Concentration in Web Application Development:

Code	Title	Credits
Select four courses from the following:		12
IT 315	Mobile Development	
IT 331	Web I: Web Development	
IT 332	Web Server Administration	
IT 335	Web Development using Content Management Systems	
IT 390	Rapid Development of Scalable Cloud Applications	
IT 415	Information Visualization	
IT 431	Web II: Advanced Web Development	
IT 479	Digital Media and Web Design Capstone	
Total Credits		12

Concentration in Cloud Computing (CCG)

Code	Title	Credits
Select four courses from the following:		12
IT 442	Cloud Infrastructure	
IT 451	Cloud Services Management	
IT 461	Application Development in Cloud	
IT 471	Big Data on Cloud Systems	
IT 481	Cloud Security	
Select one additional course from this or any other concentration within this degree program		3
Total Credits		15

Dual Concentration Requirements for Cloud Computing (CCG)

Students declaring more than one concentration in this major should use the following requirements for their Concentration in Cloud Computing:

Code	Title	Credits
Select four courses from the following:		12
IT 442	Cloud Infrastructure	
IT 451	Cloud Services Management	
IT 461	Application Development in Cloud	
IT 471	Big Data on Cloud Systems	
IT 481	Cloud Security	
Total Credits		12

Other Major Requirements

Code	Title	Credits
Select 7 credits of natural science, including at least one 4-credit course with lab [1]		7
COMM 100	Public Speaking (Mason Core) (http://catalog.gmu.edu/mason-core/)	3
or COMM 101	Fundamentals of Communication (Mason Core) (http://catalog.gmu.edu/mason-core/)	
IT 293	Applied IT: Junior Transition	1
Select one of the following		
MATH 108	Introductory Calculus with Business Applications (Mason Core) (http://catalog.gmu.edu/mason-core/)	
MATH 113	Analytic Geometry and Calculus I (Mason Core) (http://catalog.gmu.edu/mason-core/)	
HNRT 225	Applied Calculus	
Total Credits		11

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Students should choose these from the list of courses approved for Mason Core (these credits can also apply toward Mason Core requirements).

Additional Mason Core

Students must complete all Mason Core (http://catalog.gmu.edu/mason-core/) requirements not fulfilled by major requirements. All students must complete at least 24 credits of social science and humanities coursework, which is normally satisfied by the 24 credits of Mason Core social science and humanities courses listed here, including COMM 100 Public Speaking (Mason Core) (http://catalog.gmu.edu/mason-core/) or COMM 101 Fundamentals of Communication (Mason Core) (http://catalog.gmu.edu/mason-core/).

Code	Title	Credits
Written Communication (http://catalog.gmu.edu/mason-core/#written)		6
Literature (http://catalog.gmu.edu/mason-core/#literature)		3
Arts (http://catalog.gmu.edu/mason-core/#arts)		3
Global History (http://catalog.gmu.edu/mason-core/#global-history)		3
Social and Behavioral Sciences (http://catalog.gmu.edu/mason-core/#social-behavioral-science)		3
Global Understanding (http://catalog.gmu.edu/mason-core/#global)		3
Total Credits		21

Writing-Intensive Requirement

The university writing-intensive requirement is satisfied by IT 343 IT Project Management.

Electives

Code	Title	Credits
Select additional coursework to bring the total number of credits to 120		8-9
Total Credits		8-9

4-Year Plan

Bachelors of Science in Information Technology Sample Plan of Study

Detailed four year plans and degree planning checklists can be found at https://advising.gmu.edu/current-student/majors-at-mason/.

Accelerated Master's

Information Technology, BS/Information Systems, Accelerated MS

Overview

Highly-qualified students in the Information Technology, BS have the option of obtaining an accelerated Information Systems, MS (http://catalog.gmu.edu/colleges-schools/engineering-computing/school-computing/computer-science/information-systems-ms/).

For more detailed information, see AP.6.7 Bachelor's/Accelerated Master's Degrees (http://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-7). For policies governing all graduate degrees, see AP.6 Graduate Policies (http://catalog.gmu.edu/policies/academic/graduate-policies/).

Admission Requirements

Students in the Information Technology, BS program may apply to this option if they have earned 60 undergraduate credits and take graduate level courses after completion of 75 credits with an overall GPA of at least 3.30. Criteria for admission are identical to the criteria for admission to the Information Systems, MS (http://catalog.gmu.edu/colleges-schools/engineering-computing/school-computing/computer-science/information-systems-ms/) program.

Accelerated Option Requirements

Students must complete all credits that satisfy requirements for the BS and MS programs, with a minimum of 3 credits (maximum 6 credits) overlapping from the following courses:

Code	Title	Credits
CS 550	Database Systems (satisfies IT 414 requirement in the BS INFT program)	3
SWE 619	Object-Oriented Software Specification and Construction (satisfies as one DTP concentration course in the BS INFT program)	3

Note:

Students must complete MATH 125 Discrete Mathematics I (Mason Core) (http://catalog.gmu.edu/mason-core/) as their discrete math requirement and IT 306 Data Structures and Algorithms in Java or IT 309 Data Structures and Algorithms in Python as part of their concentration requirements in the BS program.

Students must also satisfy all the CS foundation requirements prior to admission: https://cs.gmu.edu/current-students/ms-students/foundation-courses/.

Degree Conferral

Students must apply the semester before they expect to complete the BS requirements to have the BS degree conferred. In addition, at the beginning of the student's final undergraduate semester, students must complete a Bachelor's/Accelerated Master's Transition form. At the completion of MS requirements, a master's degree is conferred.

Information Technology, BS/Software Engineering, Accelerated MS

Overview

Highly-qualified students in the Information Technology, BS have the option of obtaining an accelerated Software Engineering, MS (http://catalog.gmu.edu/colleges-schools/engineering-computing/school-computing/computer-science/software-engineering-ms/).

For more detailed information, see AP.6.7 Bachelor's/Accelerated Master's Degrees (http://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-7). For policies governing all graduate degrees, see AP.6 Graduate Policies (http://catalog.gmu.edu/policies/academic/graduate-policies/).

Admission Requirements

Students in the Information Technology, BS program may apply to this option if they have earned 60 undergraduate credits and take graduate level courses after completion of 75 credits with an overall GPA of at least 3.30. Criteria for admission are identical to criteria for admission to the Software Engineering, MS (http://catalog.gmu.edu/colleges-schools/engineering-computing/school-computing/computer-science/software-engineering-ms/) Program.

Accelerated Option Requirements

Students must complete all credits that satisfy requirements for the BS and MS programs, with a minimum of 3 credits (maximum 6 credits) overlapping from the following courses:

Code	Title	Credits
CS 550	Database Systems (satisfies IT 414 requirement in the BS INFT program)	3
SWE 619	Object-Oriented Software Specification and Construction (satisfies as one DTP concentration course in the BS INFT program)	3

Note:

Students must complete MATH 125 Discrete Mathematics I (Mason Core) (http://catalog.gmu.edu/mason-core/) as their discrete math requirement and IT 306 Data Structures and Algorithms in Java or IT 309 Data Structures and Algorithms in Python as part of their concentration requirements in the BS program.

Students must also satisfy all the CS foundation requirements prior to admission: https://cs.gmu.edu/current-students/ms-students/foundation-courses/.

Degree Conferral

Students must apply the semester before they expect to complete the BS requirements to have the BS degree conferred. In addition, at the beginning of the student's final undergraduate semester, students must complete a Bachelor's/Accelerated Master's Transition form. At the completion of MS requirements, a master's degree is conferred.

Information Technology, BS/Digital Forensics, Accelerated MS

Overview

Highly-qualified students in the Information Technology, BS have the option of obtaining an accelerated Digital Forensics, MS (http://catalog.gmu.edu/colleges-schools/engineering-computing/engineering/electrical-computer/digital-forensics-ms/).

For more detailed information, see AP.6.7 Bachelor's/Accelerated Master's Degrees (http://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-7). For policies governing all graduate degrees, see AP.6 Graduate Policies (http://catalog.gmu.edu/policies/academic/graduate-policies/).

Admission Requirements

Students in the Information Technology, BS program may apply for this option if they have earned 60 undergraduate credits and take graduate level courses after completion of 75 credits with an overall GPA of at least 3.25. Criteria for admission are identical to criteria for admission to the Digital Forensics, MS (http://catalog.gmu.edu/colleges-schools/engineering-computing/engineering/electrical-computer/digital-forensics-ms/) program.

Accelerated Option Requirements

Students must complete all credits that satisfy requirements for the BS and MS programs, with a minimum of 3 credits (maximum 9 credits) overlapping from the following courses:

Code	Title	Credits
DFOR 510	Digital Forensics Analysis	3
DFOR 660	Network Forensics	3
DFOR 663	Operations of Intrusion Detection for Forensics	3

Degree Conferral

Students must apply the semester before they expect to complete the BS requirements to have the BS degree conferred. In addition, at the beginning of the student's final undergraduate semester, students must complete a Bachelor's/Accelerated Master's Transition form. At the completion of MS requirements, a master's degree is conferred.

Information Technology, BS/Telecommunications, Accelerated MS

Overview

Highly-qualified students in the Information Technology, BS have the option of obtaining an accelerated Telecommunications, MS (http://catalog.gmu.edu/colleges-schools/engineering-computing/engineering/electrical-computer/telecommunications-ms/).

For more detailed information, see AP.6.7 Bachelor's/Accelerated Master's Degrees (http://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-7). For policies governing all graduate degrees, see AP.6 Graduate Policies (http://catalog.gmu.edu/policies/academic/graduate-policies/).

Admission Requirements

Students in the Information Technology, BS program may apply for this option if they have earned 60 undergraduate credits and take graduate level courses after completion of 75 credits with an overall GPA of at least 3.00. Criteria for admission are identical to criteria for admission to the Telecommunications, MS (http://catalog.gmu.edu/colleges-schools/engineering-computing/engineering/electrical-computer/telecommunications-ms/) program.

Accelerated Option Requirements

Students must complete all credits that satisfy requirements for the BS and MS programs, with a minimum of 3 credits (maximum 9 credits) overlapping from the following courses:

Code	Title	Credits
Select nine credits from the following:		9
TCOM 500	Modern Telecommunications (To satisfy the IT 300 BS, INFT requirement)	
TCOM 515	Internet Protocol Routing: Lecture and Laboratory Course (satisfies as one NTEL concentration course in the BS INFT program)	
TCOM 631	Voice Over IP (To satisfy the IT 484 BS, INFT requirement.)	
Total Credits		9

Degree Conferral

Students must apply the semester before they expect to complete the BS requirements to have the BS degree conferred. In addition, at the beginning of the student's final undergraduate semester, students must complete a Bachelor's/Accelerated Master's Transition form. At the completion of MS requirements, a master's degree is conferred.

Information Technology, BS/Applied Information Technology, Accelerated MS

Overview

Highly-qualified students in the Information Technology, BS have the option of obtaining an accelerated Applied Information Technology, MS (http://catalog.gmu.edu/colleges-schools/engineering-computing/school-computing/information-sciences-technology/applied-information-technology-ms/).

For more detailed information, see AP.6.7 Bachelor's/Accelerated Master's Degrees (http://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-7). For policies governing all graduate degrees, see AP.6 Graduate Policies (http://catalog.gmu.edu/policies/academic/graduate-policies/).

Admission Requirements

Students in the Information Technology, BS program may apply to this option if they have earned 60 undergraduate credits and take graduate

level courses after completion with an overall GPA of 75 credits with an overall GPA of at least 3.30. Criteria for admission are identical to criteria for admission to the Applied Information Technology, MS (http://catalog.gmu.edu/colleges-schools/engineering-computing/school-computing/information-sciences-technology/applied-information-technology-ms/) program.

Accelerated Option Requirements

Students must complete all credits that satisfy requirements for the BS and MS programs, with a minimum of 3 credits (maximum 12 credits) overlapping from the following courses:

Code	Title	Credits
AIT 512	Algorithms and Data Structures Essentials (satisfies the IT 306 requirement in the BS INFT program)	3
AIT 524	Database Management Systems (satisfies the IT 314 requirement in the BS INFT program)	3
AIT 542	Fundamentals of Computing Platforms (satisfies the IT 342 requirement in the BS INFT program)	3
AIT 580	Analytics: Big Data to Information (satisfies the IT 322 requirement in the BS INFT program)	3
AIT 664	Information: Representation, Processing and Visualization (satisfies the IT 415 requirement in the BS INFT program)	3
AIT 682	Network and Systems Security (satisfies the IT 366 requirement in the BS INFT program)	3

Students also have the option to take up to 6 additional credits of graduate coursework *on reserve*, which can be used for the MS degree only. See AP.1.4.4 Graduate Course Enrollment by Undergraduates (http://catalog.gmu.edu/policies/academic/registration-attendance/#ap-1-4-4).

Degree Conferral

Students must apply the semester before they expect to complete the BS requirements to have the BS degree conferred. In addition, at the beginning of the student's final undergraduate semester, students must complete a Bachelor's/Accelerated Master's Transition form that is submitted to the Office of the University Registrar and the VSE Graduate Admissions Office. At the completion of MS requirements, a master's degree is conferred.