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 Information Technology, BS program relate to the abilities of the graduates several years after graduation. Graduates of the program are expected within three to five years of graduation to have:

- Been employed in a position in which they have successfully used their information technology skills (including: problem solving, analytic, presentation and personal skills) as evidenced by achieving improved organizational objectives;
- Progressed through increasing levels of responsibility in the workplace;
- Demonstrated ethical, social and professional responsibility consistent with professional societies;
- Worked effectively in teams, whether as a participant or as a leader;
- Grown 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.

Policies
For policies governing all undergraduate degrees, see AP5 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 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, 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 both CS 112 Introduction to Computer Programming and CS 211 Object-Oriented Programming.

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.

Termination from the Major

No math, science, or Volgenau School of Engineering 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 Volgenau School who do not successfully complete a course required for a Volgenau School major within three attempts will also be terminated.

In addition, students in the Volgenau School with evidence of continued failure to make adequate progress toward declaring or completing a Volgenau School 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 Volgenau School of Engineering 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 Volgenau School of Engineering major may not register for a Volgenau School course unless application for reinstatement has been granted by the Associate Dean for Undergraduate Programs. An applicant is not eligible to choose a concentration, a student must have a B or better grade in the concentration’s gateway course.
## Concentration Gateway Courses

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

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. If two concentrations are declared, the student must take four courses in each concentration, for a total of eight different concentration courses.

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

### Database Technology and Programming (DTP)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td>IT 306</td>
<td>Data Structures and Algorithms in Java</td>
<td>3</td>
</tr>
<tr>
<td>or IT 309</td>
<td>Data Structures and Algorithms in Python</td>
<td></td>
</tr>
<tr>
<td>IT 314</td>
<td>Database Programming</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Select 2 from the following courses</strong></td>
<td>6</td>
</tr>
<tr>
<td>IT 315</td>
<td>Mobile Development</td>
<td></td>
</tr>
<tr>
<td>IT 322</td>
<td>Health Data Challenges</td>
<td></td>
</tr>
<tr>
<td>IT 369</td>
<td>Data and Application Security</td>
<td></td>
</tr>
<tr>
<td>IT 390</td>
<td>Rapid Development of Scalable Cloud Applications</td>
<td></td>
</tr>
<tr>
<td>IT 409</td>
<td>Python Web Programming</td>
<td></td>
</tr>
<tr>
<td>IT 410</td>
<td>Web Programming</td>
<td></td>
</tr>
<tr>
<td>IT 414</td>
<td>Database Administration</td>
<td></td>
</tr>
<tr>
<td>IT 491</td>
<td>Introduction to Applied Natural Language Processing</td>
<td></td>
</tr>
<tr>
<td>IT 495</td>
<td>Turning Ideas into Successful Companies</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

### Health Information Technology (HIT)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Select 4 courses from the following</strong></td>
<td>12</td>
</tr>
<tr>
<td>HAP 360</td>
<td>Introduction to Health Information Systems</td>
<td></td>
</tr>
<tr>
<td>IT 322</td>
<td>Health Data Challenges</td>
<td></td>
</tr>
<tr>
<td>IT 324</td>
<td>Health Information Technology Fundamentals</td>
<td></td>
</tr>
<tr>
<td>IT 390</td>
<td>Rapid Development of Scalable Cloud Applications</td>
<td></td>
</tr>
<tr>
<td>STAT 362</td>
<td>Introduction to Computer Statistical Packages</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Select one additional course from any other concentration</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

### Cyber Security (CYBR)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Select 4 courses from the following</strong></td>
<td>12</td>
</tr>
<tr>
<td>IT 352</td>
<td>Security Administration of Linux Systems</td>
<td></td>
</tr>
<tr>
<td>IT 353</td>
<td>Information Defense Technologies</td>
<td></td>
</tr>
<tr>
<td>IT 357</td>
<td>Computer Crime, Forensics, and Auditing</td>
<td></td>
</tr>
<tr>
<td>IT 366</td>
<td>Network Security</td>
<td></td>
</tr>
<tr>
<td>IT 369</td>
<td>Data and Application Security</td>
<td></td>
</tr>
<tr>
<td>IT 429</td>
<td>Security Accreditation of Information Systems</td>
<td></td>
</tr>
<tr>
<td>IT 462</td>
<td>Applied Cyber Threat Analysis</td>
<td></td>
</tr>
<tr>
<td>IT 466</td>
<td>Foundations of Cryptography and Security</td>
<td></td>
</tr>
<tr>
<td>IT 467</td>
<td>Network Defense</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Select one additional course from any other concentration</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

### Network and Telecommunications (NTEL)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Select 4 courses from the following</strong></td>
<td>12</td>
</tr>
<tr>
<td>ECE 301</td>
<td>Digital Electronics</td>
<td></td>
</tr>
<tr>
<td>IT 366</td>
<td>Network Security</td>
<td></td>
</tr>
<tr>
<td>IT 441</td>
<td>Network Servers and Infrastructures</td>
<td></td>
</tr>
<tr>
<td>IT 445</td>
<td>Advanced Networking Principles</td>
<td></td>
</tr>
<tr>
<td>IT 455</td>
<td>Wireless Communications and Networking</td>
<td></td>
</tr>
<tr>
<td>IT 465</td>
<td>Peer-to-Peer Systems and Overlay Networks</td>
<td></td>
</tr>
<tr>
<td>IT 484</td>
<td>Voice Communications Technologies</td>
<td></td>
</tr>
<tr>
<td>IT 488</td>
<td>Fundamentals of Satellite Communications</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Select one additional course from any other concentration</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td>15</td>
</tr>
</tbody>
</table>
### Web Application Development (WADV)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 315</td>
<td>Mobile Development</td>
<td></td>
</tr>
<tr>
<td>IT 331</td>
<td>Web I: Web Development</td>
<td></td>
</tr>
<tr>
<td>IT 332</td>
<td>Web Server Administration</td>
<td></td>
</tr>
<tr>
<td>IT 335</td>
<td>Web Development using Content Management Systems</td>
<td></td>
</tr>
<tr>
<td>IT 390</td>
<td>Rapid Development of Scalable Cloud Applications</td>
<td></td>
</tr>
<tr>
<td>IT 415</td>
<td>Information Visualization</td>
<td></td>
</tr>
<tr>
<td>IT 431</td>
<td>Web II: Advanced Web Development</td>
<td></td>
</tr>
<tr>
<td>IT 479</td>
<td>Digital Media and Web Design Capstone</td>
<td></td>
</tr>
</tbody>
</table>

Select one additional course from any other concentration 3

**Total Credits** 15

### Cloud Computing (CCG)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 442</td>
<td>Cloud Infrastructure</td>
<td></td>
</tr>
<tr>
<td>IT 451</td>
<td>Cloud Services Management</td>
<td></td>
</tr>
<tr>
<td>IT 461</td>
<td>Application Development in Cloud</td>
<td></td>
</tr>
<tr>
<td>IT 471</td>
<td>Big Data on Cloud Systems</td>
<td></td>
</tr>
<tr>
<td>IT 481</td>
<td>Cloud Security</td>
<td></td>
</tr>
</tbody>
</table>

Select one additional course from any other concentration 3

**Total Credits** 15

### Other Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 100</td>
<td>Public Speaking (Mason Core) (<a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a>)</td>
<td>3</td>
</tr>
<tr>
<td>or COMM 101</td>
<td>Fundamentals of Communication (Mason Core) (<a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a>)</td>
<td>3</td>
</tr>
<tr>
<td>IT 293</td>
<td>Applied IT: Junior Transition</td>
<td>1</td>
</tr>
<tr>
<td>MATH 108</td>
<td>Introductory Calculus with Business Applications (Mason Core) (<a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a>)</td>
<td>3-4</td>
</tr>
<tr>
<td>or MATH 113</td>
<td>Analytic Geometry and Calculus I (Mason Core) (<a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a>)</td>
<td>3-4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 108</td>
<td>Introductory Calculus with Business Applications (Mason Core) (<a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a>)</td>
<td>3-4</td>
</tr>
<tr>
<td>or MATH 113</td>
<td>Analytic Geometry and Calculus I (Mason Core) (<a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a>)</td>
<td>3-4</td>
</tr>
</tbody>
</table>

**Total Credits** 14-15

1 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/).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Communication (<a href="http://catalog.gmu.edu/mason-core/#written">http://catalog.gmu.edu/mason-core/#written</a>)</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Literature (<a href="http://catalog.gmu.edu/mason-core/#literature">http://catalog.gmu.edu/mason-core/#literature</a>)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Arts (<a href="http://catalog.gmu.edu/mason-core/#arts">http://catalog.gmu.edu/mason-core/#arts</a>)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Western Civilization/World History (<a href="http://catalog.gmu.edu/mason-core/#western-civilization-world-history">http://catalog.gmu.edu/mason-core/#western-civilization-world-history</a>)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences (<a href="http://catalog.gmu.edu/mason-core/#social-behavioral-science">http://catalog.gmu.edu/mason-core/#social-behavioral-science</a>)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Global Understanding (<a href="http://catalog.gmu.edu/mason-core/#global">http://catalog.gmu.edu/mason-core/#global</a>)</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits** 21

### Writing-Intensive Requirement

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

### Electives

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 Security and Assurance, Accelerated MS Overview

Highly-qualified students in the Information Technology, BS have the option of obtaining an accelerated Information Security and Assurance, MS (http://catalog.gmu.edu/colleges-schools/engineering/computer-science/information-security-assurance-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 AP6 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 90 undergraduate credits with an overall GPA of at least 3.30. Criteria for admission are identical to criteria for admission to the Information Security and Assurance, MS (http://
catalog.gmu.edu/colleges-schools/engineering/computer-science/information-security-assurance-ms/) program.

**Accelerated Option Requirements**

Students must complete all credits that satisfy requirements for the BS and MS programs, with 6 credits overlapping with the following two courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFS 612</td>
<td>Principles and Practices of Communication Networks (satisfies IT 441 requirement in the BS program)</td>
<td>3</td>
</tr>
<tr>
<td>ISA 562</td>
<td>Information Security Theory and Practice (satisfies IT 462 requirement in the BS program)</td>
<td>3</td>
</tr>
</tbody>
</table>

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 as part of their concentration requirements in the BS program.

**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.

**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/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 AP6 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 90 undergraduate 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/computer-science/information-systems-ms/) program.

**Accelerated Option Requirements**

Students must complete all credits that satisfy requirements for the BS and MS programs, with up to 6 overlapping credits chosen from the following two courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 550</td>
<td>Database Systems (satisfies IT 414 requirement in the BS program)</td>
<td>3</td>
</tr>
<tr>
<td>INFS 622</td>
<td>Information Systems Analysis and Design (satisfies as one DTP concentration course in the BS program)</td>
<td>3</td>
</tr>
</tbody>
</table>

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 as part of their concentration requirements in the BS program

**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.

**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/electrical-computer/digital-forensics-ms/).

For more detailed information, see AP6.7 Bachelor's/Accelerated Master's Degrees (http://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-7). For policies governing all graduate degrees, see AP6 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 90 undergraduate 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/electrical-computer/digital-forensics-ms/) program.

**Accelerated Option Requirements**

Students must complete all credits that satisfy requirements for the BS and MS programs, with 6 credits overlapping with two of the following three courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFRS 500</td>
<td>Introduction to Forensic Technology and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CFRS 510</td>
<td>Digital Forensics Analysis (satisfies the IT 357 requirement for the INFS concentration in the BS program)</td>
<td>3</td>
</tr>
<tr>
<td>CFRS 660</td>
<td>Network Forensics (satisfies as one NTEL concentration course in the BS program)</td>
<td>3</td>
</tr>
</tbody>
</table>

**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.

**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/electrical-computer/telecommunications-ms/).

For more detailed information, see AP6.7 Bachelor's/Accelerated Master's Degrees (http://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-7). For policies governing all graduate degrees, see AP6 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 75 undergraduate 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/electrical-computer/telecommunications-ms/) program.

**Accelerated Option Requirements**

Students must complete all credits that satisfy requirements for the BS and MS programs.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCOM 500</td>
<td>Modern Telecommunications (To satisfy the IT 300 BS, AIT requirement)</td>
<td>6</td>
</tr>
<tr>
<td>TCOM 535</td>
<td>The TCP/IP Suite of Internet Protocols (To satisfy the IT 441 BS, AIT requirement)</td>
<td>6</td>
</tr>
<tr>
<td>TCOM 631</td>
<td>Voice Over IP (To satisfy the IT 484 BS, AIT requirement)</td>
<td>6</td>
</tr>
</tbody>
</table>

**Note:**

Students in the accelerated option who have passed IT 341 Data Communications and Network Principles with a grade of B or higher will not be required to take TCOM 535 The TCP/IP Suite of Internet Protocols, which is listed in the MS TCOM core. Alternative sections of TCOM courses to satisfy requirements in the AIT undergraduate program may be made with the approval of the undergraduate academic advisor.

**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.
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/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 AP6 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 90 undergraduate 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/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 6 credits overlap.

Students register for 6 credits of AIT 500-level core courses in place of the corresponding IT 300-level courses required for the undergraduate degree requirements.

Students must register for two of the following courses in place of the corresponding 300-level courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIT 512</td>
<td>Algorithms and Data Structures Essentials (satisfies the IT 306 requirement in the BS program)</td>
<td>3</td>
</tr>
<tr>
<td>AIT 524</td>
<td>Database Management Systems (satisfies the IT 314 requirement in the BS program)</td>
<td>3</td>
</tr>
<tr>
<td>AIT 542</td>
<td>Fundamentals of Computing Platforms (satisfies the IT 342 requirement in the BS program)</td>
<td>3</td>
</tr>
</tbody>
</table>

Students may take additional graduate-level courses as part of their BS technical electives with advisor approval. These additional graduate-level courses will not count toward the MS degree. See AP1.4.4 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.