

Information Technology, BS/ Applied Information Technology Accelerated, MS (2021-2022 catalog)

ist.gmu.edu/go/applyaccelerated

Contact: msait@gmu.edu

Highly-qualified students in the Information Technology, BS have the option of obtaining an accelerated Applied Information Technology, MS. Students may apply 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 [Applied Information Technology, MS](#) program.

If accepted, 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:

- AIT 512- *Algorithms and Data Structures Essentials* (satisfies IT 306 [DTP concentration core])
- AIT 524- *Database Management Systems* (satisfies IT 314 [DTP concentration core])
- AIT 542- *Fundamentals of Computing Platforms* (satisfies IT 342 [major core])
- AIT 580- *Analytics: Big Data to Information* (satisfies IT 322 [DTP/HIT concentration core])
- AIT 664- *Information: Representation, Processing and Visualization* (satisfies IT 415 [WADV concentration core])
- AIT 682- *Network and Systems Security* (satisfies IT 366 [CYBR/NTEL concentration core])

Students may take additional 6 credits of graduate-level courses as graduate credits in reserve. Graduate credits in reserve do not count toward the BS degree and can only be used for the MS degree (see [AP.1.4.4 Graduate Course Enrollment by Undergraduates](#)).

Other Accelerated Programs associated with the BS INFT are:

Information Technology, BS/Information Security and Assurance, Accelerated MS

contact: csgrad@gmu.edu

- ISA 562 (satisfies IT 462 [CYBR concentration core])
- ECE 646 (satisfies IT 466 [CYBR concentration core])
- Also required: MATH 125 [major foundation] and IT 306 or IT 309 [DTP concentration core]*

Information Technology, BS/Information Systems, Accelerated MS

contact: csgrad@gmu.edu

- CS 550 (satisfies IT 414 [DTP concentration core])
- SWE 619 (satisfies one DTP concentration core)
- Also required: MATH 125 [major foundation] and IT 306 or IT 309 [DTP concentration core]*

Information Technology, BS/Software Engineering, Accelerated MS

contact: csgrad@gmu.edu

- CS 550 (satisfies IT 414 [DTP concentration])
- SWE 619 (satisfies one DTP concentration core)
- Also required: MATH 125 [major foundation] and IT 306 or IT 309 [DTP concentration core]*

To be eligible for the BAM ISA, SWE, or BAM ISYS, students must satisfy all the CS foundation requirements prior to admission:

<https://cs.gmu.edu/current-students/ms-students/foundation-courses/>.

Information Technology, BS/Digital Forensics, Accelerated MS

contact: ece@gmu.edu

- 3-9 credits from:
 - DFOR 663 (satisfies one undergraduate CYBR concentration course)
 - DFOR 510 (satisfies IT 357 [CYBR concentration core])
 - DFOR 660 (satisfies one undergraduate CYBR concentration course)

Information Technology, BS/Telecommunications, Accelerated MS

contact: tcom@gmu.edu

- 3-9 credits from:
 - TCOM 500 (satisfies IT 300 [major core])
 - TCOM 515 (satisfies one NTEL concentration core)
 - TCOM 631 (satisfies IT 484 [NTEL concentration core])*

4-year Plan of Study for Information Technology, BS/Information Security and Assurance, Accelerated MS

To be eligible for the BAM ISA, SWE, or BAM ISYS, students must satisfy all the CS foundation requirements prior to admission:
<https://cs.gmu.edu/current-students/ms-students/foundation-courses/>.

Choose 1-2 courses (3-6 credits) from:

ISA 562 (satisfies IT 462 [CYBR concentration core])

ECE 646 (satisfies IT 466 [CYBR concentration core])

First Semester	Credits	Second Semester	Credits
MATH 108 Introductory Calculus with Business Applications or MATH 113 Analytic Geometry and Calc I	3	MATH 125 Discrete Mathematics I	3
IT 104 Introduction to Computing	3	IT 106 Intro to IT Problem Solv Using Comp Progr or IT 109 Intro to Comp Prog	3
IT 105 IT Architecture Fundamentals	3	Mason Core*	3
Mason Core*	3	Mason Core*	3
Mason Core*	3	Mason Core*	3
Total Hours	15	Total Hours	15
Third Semester		Fourth Semester	
IT 206 or IT 209 Intro Object Oriented Programming	3	STAT 250 Introductory Statistics I	3
IT 213 Multimedia and Web Design	3	IT 216 Systems Analysis and Design	3
IT 214 Database Fundamentals	3	IT 223 Information Security Fundamentals	3
Mason Core Natural Science with lab*	4	IT 293 Applied IT: Junior Transition	1
Mason Core*	3	IT 342 Operating System Fundamentals	3
Total Hours	16	Mason Core*	3
		Total Hours	16
Fifth Semester		Sixth Semester	
IT 207 Applied IT Programming	3	Mason Core*	3
IT 300 Modern Telecommunications	3	IT 343 IT Project Management	3
IT 304 IT in the Global Economy	3	IT 306 or IT 309 (concentration #1, DTP core)	3
IT 341 Data Communications and Network	3	MBUS 300 Accounting in a Global Economy	3
SYST 469 Human Computer Interaction	3	Elective	3
Total Hours	15	Total Hours	15
Seventh Semester		Eighth Semester	
IT 492 Senior Design Project I	3	IT 493 Senior Design Project II	4
BAM: ISA 562 (CYBR core)/IT Concentration Course	3	BAM: ECE 646 (CYBR core)/IT Concentration Course	3
IT Concentration Course	3	IT Concentration Course	3
ENGH 302 Adv Comp (Business, Nat Sci, or Multi Disc)***	3	Elective	3
Elective	3	Total Hours	13
Total Hours	15		

How the BAM courses apply to the BS INFT depend entirely on the concentration a student declares. Be sure to work with your BS INFT advisor to help you choose the correct courses to satisfy the BS INFT and BAM requirements.

4-year Plan of Study for Information Technology, BS/Information Systems, Accelerated MS

To be eligible for the BAM ISA, SWE, or BAM ISYS, students must satisfy all the CS foundation requirements prior to admission:

<https://cs.gmu.edu/current-students/ms-students/foundation-courses/>.

Choose 1-2 courses (3-6 credits) from:

CS 550 (satisfies IT 414 [DTP concentration core])

SWE 619 (satisfies one DTP concentration core)

First Semester	Credits	Second Semester	Credits
MATH 108 Introductory Calculus with Business Applications or MATH 113 Analytic Geometry and Calc I	3	MATH 125 Discrete Mathematics I	3
IT 104 Introduction to Computing	3	IT 106 Intro to IT Problem Solv Using Comp Progr or IT 109 Intro to Comp Prog	3
IT 105 IT Architecture Fundamentals	3	Mason Core*	3
Mason Core*	3	Mason Core*	3
Mason Core*	3	Mason Core*	3
Total Hours	15	Total Hours	15
Third Semester		Fourth Semester	
IT 206 or IT 209 Intro Object Oriented Programming	3	STAT 250 Introductory Statistics I	3
IT 213 Multimedia and Web Design	3	IT 216 Systems Analysis and Design	3
IT 214 Database Fundamentals	3	IT 223 Information Security Fundamentals	3
Mason Core Natural Science with lab*	4	IT 293 Applied IT: Junior Transition	1
Mason Core*	3	IT 342 Operating System Fundamentals	3
Total Hours	16	Mason Core*	3
		Total Hours	16
Fifth Semester		Sixth Semester	
IT 207 Applied IT Programming	3	Mason Core*	3
IT 300 Modern Telecommunications	3	IT 343 IT Project Management	3
IT 304 IT in the Global Economy	3	IT 306 or IT 309 (DTP core)/Concentration Course	3
IT 341 Data Communications and Network	3	MBUS 300 Accounting in a Global Economy	3
SYST 469 Human Computer Interaction	3	Elective	3
Total Hours	15	Total Hours	15
Seventh Semester		Eighth Semester	
IT 492 Senior Design Project I	3	IT 493 Senior Design Project II	4
BAM: CS 550 (DTP core)/IT Concentration Course	3	BAM: SWE 619 (DTP core)/IT Concentration Course	3
IT Concentration Course	3	IT Concentration Course	3
ENGH 302 Adv Comp (Business, Nat Sci, or Multi Disc)***	3	Elective	3
Elective	3		
Total Hours	15	Total Hours	13

How the BAM courses apply to the BS INFT depend entirely on the concentration a student declares. Be sure to work with your BS INFT advisor to help you choose the correct courses to satisfy the BS INFT and BAM requirements.

4-year Plan of Study for Information Technology, BS/Software Engineering, Accelerated MS

To be eligible for the BAM ISA, SWE, or BAM ISYS, students must satisfy all the CS foundation requirements prior to admission:
<https://cs.gmu.edu/current-students/ms-students/foundation-courses/>.

Choose 1-2 courses (3-6 credits) from:
 CS 550 (satisfies IT 414 [DTP concentration core])
 SWE 619 (satisfies one DTP concentration core)

First Semester	Credits	Second Semester	Credits
MATH 108 Introductory Calculus with Business Applications or MATH 113 Analytic Geometry and Calc I	3	MATH 125 Discrete Mathematics I	3
IT 104 Introduction to Computing	3	IT 106 Intro to IT Problem Solv Using Comp Progr or IT 109 Intro to Comp Prog	3
IT 105 IT Architecture Fundamentals	3	Mason Core*	3
Mason Core*	3	Mason Core*	3
Mason Core*	3	Mason Core*	3
Total Hours	15	Total Hours	15
Third Semester		Fourth Semester	
IT 206 or IT 209 Intro Object Oriented Programming	3	STAT 250 Introductory Statistics I	3
IT 213 Multimedia and Web Design	3	IT 216 Systems Analysis and Design	3
IT 214 Database Fundamentals	3	IT 223 Information Security Fundamentals	3
Mason Core Natural Science with lab*	4	IT 293 Applied IT: Junior Transition	1
Mason Core*	3	IT 342 Operating System Fundamentals	3
Total Hours	16	Mason Core*	3
		Total Hours	16
Fifth Semester		Sixth Semester	
IT 207 Applied IT Programming	3	Mason Core*	3
IT 300 Modern Telecommunications	3	IT 343 IT Project Management	3
IT 304 IT in the Global Economy	3	IT 306 or IT 309 (DTP core)/Concentration Course	3
IT 341 Data Communications and Network	3	MBUS 300 Accounting in a Global Economy	3
SYST 469 Human Computer Interaction	3	Elective	3
Total Hours	15	Total Hours	15
Seventh Semester		Eighth Semester	
IT 492 Senior Design Project I	3	IT 493 Senior Design Project II	4
BAM: CS 550 (DTP core)/IT Concentration Course	3	BAM: SWE 619 (DTP core)/IT Concentration Course	3
IT Concentration Course	3	IT Concentration Course	3
ENGH 302 Adv Comp (Business, Nat Sci, or Multi Disc)***	3	Elective	3
Elective	3		
Total Hours	15	Total Hours	13

How the BAM courses apply to the BS INFT depend entirely on the concentration a student declares. Be sure to work with your BS INFT advisor to help you choose the correct courses to satisfy the BS INFT and BAM requirements.

4-year Plan of Study for Information Technology, BS/Digital Forensics, Accelerated MS

Choose 1-3 courses (3-9 credits) from:

DFOR 663 (satisfies one undergraduate CYBR concentration course)

DFOR 510 (satisfies IT 357 [CYBR concentration core])

DFOR 660 (satisfies one undergraduate CYBR concentration course)

First Semester	Credits	Second Semester	Credits
MATH 108 Introductory Calculus with Business Applications or MATH 113 Analytic Geometry and Calc I	3	IT 102 Discrete Structures or MATH 125 Discrete Mathematics I	3
IT 104 Introduction to Computing	3	IT 106 Intro to IT Problem Solv Using Comp Progr or IT 109 Intro to Comp Progr	3
IT 105 IT Architecture Fundamentals	3	Mason Core*	3
Mason Core*	3	Mason Core*	3
Mason Core*	3	Mason Core*	3
Total Hours	15	Total Hours	15
Third Semester		Fourth Semester	
IT 206 or IT 209 Intro Object Oriented Programming	3	STAT 250 Introductory Statistics I	3
IT 213 Multimedia and Web Design	3	IT 216 Systems Analysis and Design	3
IT 214 Database Fundamentals	3	IT 223 Information Security Fundamentals	3
Mason Core Natural Science with lab*	4	IT 293 Applied IT: Junior Transition	1
Mason Core*	3	Mason Core*	3
Total Hours	16	Total Hours	16
Fifth Semester		Sixth Semester	
IT 207 Applied IT Programming	3	IT 342 Operating System Fundamentals	3
IT 300 Modern Telecommunications	3	IT 343 IT Project Management	3
IT 304 IT in the Global Economy	3	BAM: DFOR 510 (CYBR core)/Concentration Course	3
IT 341 Data Communications and Network	3	MBUS 300 Accounting in a Global Economy	3
SYST 469 Human Computer Interaction	3	Elective	3
Total Hours	15	Total Hours	15
Seventh Semester		Eighth Semester	
IT 492 Senior Design Project I	3	IT 493 Senior Design Project II	4
BAM: DFOR 660 (CYBR core)/IT Concentration Course	3	BAM: DFOR 663 (CYBR core)/IT Concentration Course	3
IT Concentration Course	3	IT Concentration Course	3
ENGH 302 Adv Comp (Business, Nat Sci, or Multi Disc)***	3	Elective	3
Elective	3	Total Hours	13
Total Hours	15		

How the BAM courses apply to the BS INFT depend entirely on the concentration a student declares. Be sure to work with your BS INFT advisor to help you choose the correct courses to satisfy the BS INFT and BAM requirements.

4-year Plan of Study for Information Technology, BS/Telecommunications, Accelerated MS

Choose 1-3 courses (3-9 credits) from:

TCOM 500 (satisfies IT 300 [major core])

TCOM 515 (satisfies one NTEL concentration core)

TCOM 631 (satisfies IT 484 [NTEL concentration core])

First Semester	Credits	Second Semester	Credits
MATH 108 Introductory Calculus with Business Applications or MATH 113 Analytic Geometry and Calc I	3	IT 102 Discrete Structures or MATH 125 Discrete Mathematics I	3
IT 104 Introduction to Computing	3	IT 106 Intro to IT Problem Solv Using Comp Progr or IT 109 Intro to Comp Progr	3
IT 105 IT Architecture Fundamentals	3	Mason Core*	3
Mason Core*	3	Mason Core*	3
Mason Core*	3	Mason Core*	3
Total Hours	15	Total Hours	15
Third Semester		Fourth Semester	
IT 206 or IT 209 Intro Object Oriented Programming	3	STAT 250 Introductory Statistics I	3
IT 213 Multimedia and Web Design	3	IT 216 Systems Analysis and Design	3
IT 214 Database Fundamentals	3	IT 223 Information Security Fundamentals	3
Mason Core Natural Science with lab*	4	IT 293 Applied IT: Junior Transition	1
Mason Core*	3	Mason Core*	3
		Mason Core*	3
Total Hours	16	Total Hours	16
Fifth Semester		Sixth Semester	
IT 207 Applied IT Programming	3	BAM: TCOM 500 (satisfies IT 300)	3
MBUS 300 Accounting in a Global Economy	3	IT 341 Data Communications and Network	3
IT 304 IT in the Global Economy	3	IT Concentration Course	3
IT 343 IT Project Management	3	IT 342 Operating System Fundamentals	3
SYST 469 Human Computer Interaction	3	Elective	3
Total Hours	15	Total Hours	15
Seventh Semester		Eighth Semester	
IT 492 Senior Design Project I	3	IT 493 Senior Design Project II	4
BAM: TCOM 515 (NTEL core)/IT Concentration Course	3	BAM: TCOM 631 (NTEL core)/IT Concentration Course	3
IT Concentration Course	3	IT Concentration Course	3
ENGH 302 Adv Comp (Business, Nat Sci, or Multi Disc)***	3	Elective	3
Elective	3		
Total Hours	15	Total Hours	13

How the BAM courses apply to the BS INFT depend entirely on the concentration a student declares. Be sure to work with your BS INFT advisor to help you choose the correct courses to satisfy the BS INFT and BAM requirements.

4-year Plan of Study for Information Technology, BS/ Applied Information Technology Accelerated, MS

Choose 1-4 courses (3-12 credits) from:

AIT 512- *Algorithms and Data Structures Essentials* (satisfies IT 306 [DTP concentration core])

AIT 524- *Database Management Systems* (satisfies IT 314 [DTP concentration core])

AIT 542- *Fundamentals of Computing Platforms* (satisfies IT 342 [major core])

AIT 580- *Analytics: Big Data to Information* (satisfies IT 322 [DTP/HIT concentration core])

AIT 664- *Information: Representation, Processing and Visualization* (satisfies IT 415 [WADV concentration core])

AIT 682- *Network and Systems Security* (satisfies IT 366 [CYBR/NTEL concentration core])

First Semester	Credits	Second Semester	Credits
MATH 108 Introductory Calculus with Business Applications or MATH 113 Analytic Geometry and Calc I	3	IT 102 Discrete Structures or MATH 125 Discrete Mathematics I	3
IT 104 Introduction to Computing	3	IT 106 Intro to IT Problem Solv Using Comp Progr or IT 109 Intro to Comp Prog	3
IT 105 IT Architecture Fundamentals	3	Mason Core*	3
Mason Core*	3	Mason Core*	3
Mason Core*	3	Mason Core*	3
Total Hours	15	Total Hours	15
Third Semester		Fourth Semester	
IT 206 or IT 209 Intro Object Oriented Programming	3	STAT 250 Introductory Statistics I	3
IT 213 Multimedia and Web Design	3	IT 216 Systems Analysis and Design	3
IT 214 Database Fundamentals	3	IT 223 Information Security Fundamentals	3
Mason Core Natural Science with lab*	4	IT 293 Applied IT: Junior Transition	1
Mason Core*	3	Mason Core*	3
Total Hours	16	Mason Core*	3
		Total Hours	16
Fifth Semester		Sixth Semester	
IT 207 Applied IT Programming	3	BAM: AIT 542 (satisfies IT 342)	3
IT 300 Modern Telecommunications	3	IT 343 IT Project Management	3
IT 304 IT in the Global Economy	3	IT Concentration Course	3
IT 341 Data Communications and Network	3	MBUS 300 Accounting in a Global Economy	3
SYST 469 Human Computer Interaction	3	Elective	3
Total Hours	15	Total Hours	15
Seventh Semester		Eighth Semester	
IT 492 Senior Design Project I	3	IT 493 Senior Design Project II	4
BAM/IT Concentration Course	3	BAM/IT Concentration Course	3
BAM/IT Concentration Course	3	IT Concentration Course	3
ENGH 302 Adv Comp (Business, Nat Sci, or Multi Disc)***	3	Elective	3
Elective	3	Total Hours	13
Total Hours	15		

How the BAM courses apply to the BS INFT depend entirely on the concentration a student declares. Be sure to work with your BS INFT advisor to help you choose the correct courses to satisfy the BS INFT and BAM requirements.