

Information Technology Undergraduate Certificate Concentration in General (GEN) Advising Sheet: 2019-2020 Catalog

This certificate is designed primarily for those students who have earned a bachelor's degree or current undergraduate students who desire deeper knowledge than what can be accomplished through the IT minor. It allows students to augment the knowledge gained through their major-related courses with a foundation of information technology (IT) topics and their application within organizations to achieve organizational objectives. Completing this undergraduate certificate provides students with the necessary skills to improve their attractiveness to employers in our technology-driven society. The certificate requires a minimum of 24 credits, including 15 credits of core courses. Beyond these requirements, students must select three additional IT courses (9 credits, at least 3 upper division credits). Students pursuing the IT undergraduate certificate should consult with an advisor to select their additional courses.

Students pursuing only the undergraduate certificate in information technology will not maintain full-time status which requires a minimum of 12 credits per semester.

Students must complete all requirements within a concentration.

Concentration in General (GEN)			
CORE			
COURSE	SEMESTER	GRADE	COMPLETED?
IT 102 (3) <i>Discrete Structures</i> or MATH 125 (3) <i>Discrete Mathematics I</i>			
IT 104 (3) <i>Introduction to Computing</i>			
IT 105 (3) <i>IT Architecture Fundamentals</i>			
IT 106 (3) <i>Introduction to IT Problem Solving Using Computer Programming</i>			
Choose 1 from: IT 206 or IT 209, IT 207, IT 213, IT 214, IT 223			
TECHNICAL FOCUS			
<p><i>Students must select 9 credits from the approved list of technical focus courses; at least 3 of those credits must be at the upper division (300/400) level. Students must satisfy all prerequisites and other requirements in order to take any of the technical focus courses. Courses chosen for the technical focus must be chosen with a coordinator in the Information Sciences and Technology department.</i></p> <p><i>Not all courses are offered each semester.</i></p>			

Student's Name: _____

Student's G#: _____

Date: _____

Advisor Seen: _____

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Technical Focus Course Options:**

IT 206	<i>Object Oriented Techniques for IT Problem Solving</i>	3
IT 207	<i>Applied IT Programming</i>	3
IT 213	<i>Multimedia and Web Design</i>	3
IT 214	<i>Database Fundamentals</i>	3
IT 223	<i>Information Security Fundamentals</i>	3
IT 300	<i>Modern Telecommunications</i>	3
IT 304	<i>IT in the Global Economy (Mason Core)</i>	3
IT 306	<i>Program Design and Data Structures</i>	3
IT 314	<i>Database Programming</i>	3
IT 315	<i>Mobile Development</i>	3
IT 322	<i>Health Data Challenges</i>	3
IT 324	<i>Health Information Technology Fundamentals</i>	3
IT 328	<i>Health Information Emerging Technologies</i>	3
IT 331	<i>Web I: Web Development</i>	3
IT 332	<i>Web Server Administration</i>	3
IT 335	<i>Web Development using Content Management Systems</i>	3
IT 341	<i>Data Communications and Network Principles</i>	3
IT 353	<i>Information Defense Technologies</i>	3
IT 357	<i>Computer Crime, Forensics, and Auditing</i>	3
IT 366	<i>Network Security I</i>	3
IT 390	<i>Rapid Development of Scalable Applications</i>	3
IT 410	<i>Web Programming</i>	3
IT 413	<i>Digital Media Editing</i>	3
IT 414	<i>Database Administration</i>	3
IT 415	<i>Information Visualization</i>	3
IT 431	<i>Web II: Advanced Web Development</i>	3
IT 441	<i>Network Servers and Infrastructures</i>	3
IT 445	<i>Advanced Networking Principles</i>	3
IT 455	<i>Wireless Communications and Networking</i>	3
IT 462	<i>Information Security Principles</i>	3
IT 465	<i>Peer-to-Peer Systems and Overlay Networks</i>	3
IT 466	<i>Network Security II</i>	3
IT 467	<i>Network Defense</i>	3
IT 484	<i>Voice Communications Technologies</i>	3
IT 488	<i>Fundamentals of Satellite Communications</i>	3