

University of Detroit Mercy
Computer & Information Systems Department

Program	Learning Goal	Learning Objectives	Where Assessed
BS, MS, Minor Cybersecurity	A. Prepare students with the technical knowledge and skills needed to protect and defend computer systems and networks	1. Describe and analyze the hardware, software, components of a network and the interrelations	CIS 4570 CIS 5590
		2. Explain networking protocols and their hierarchical relationship hardware and software	CIS 4570 CIS 5590
		3. Compare protocol models and select appropriate protocols for a particular design	CIS 4060 CIS 5200
		4. Use appropriate resources to stay abreast of the latest industry tools and techniques analyzing the impact on existing systems and applying to future situation	CIS 4860 CIS 5750

University of Detroit Mercy
Computer & Information Systems Department

Program	Learning Goal	Learning Objectives	Where Assessed
		5. Apply appropriate ethical and moral standards to information security activities	CIS 1000 CIS 1020 CIS 1030 CIS 3870 CIS 4050 CIS 4570 CIS 4650 CIS 4710 CIS 4720 CIS 4840 CIS 4850 CIS 5710 CIS 5720 CIS 5730 CIS 5780
BS, MS, Minor Cybersecurity	B. Develop graduates that can plan, implement, and monitor cyber security mechanisms to help ensure the protection of information technology assets	1. Analyze and evaluate the cyber security needs of an organization	CIS 2010 CIS 2200 CIS 3250 CIS 3870 CIS 5700 CIS 5748
		2. Design operational and strategic cyber security strategies and policies	CIS 3350 CIS 5780

University of Detroit Mercy
Computer & Information Systems Department

Program	Learning Goal	Learning Objectives	Where Assessed
		3. Design and develop a security architecture for an organization	CIS 2010 CIS2200 CIS 3250 CIS 3870 CIS 4560 CIS 5750
		4. Conduct a cyber security risk assessment	CIS 4050 CIS 4450 CIS 4550 CIS 4710 CIS 5780
		5. Measure the performance and troubleshoot cyber security systems	CIS 4720 CIS4850 CIS 5720
		6. Identify the key cyber security vendors in the marketplace	CIS 4050 CIS 4450 CIS 4550 CIS 4880 CIS 5740

University of Detroit Mercy
Computer & Information Systems Department

Program	Learning Goal	Learning Objectives	Where Assessed
BS, MS, Minor Cybersecurity	C. Develop graduates that can identify, analyze, and remediate computer security breaches	1. Manage multiple operating systems, systems software, network services and security	CIS 3250 CIS 4450 CIS 4550 CIS 4710 CIS 5590
		2. Evaluate and compare systems software and emerging technologies	CIS 4060 CIS 4505 CIS 4710 CIS 5740
		3. Effectively communicate technical information verbally, in writing, and in presentations	CIS 3250 CIS 4060 CIS 4505 CIS 5780 CIS 5790
		4. Implement cyber security solutions	CIS 2010 CIS 3250 CIS 5590
		5. Be able to use cyber security, information assurance, and cyber/computer forensics software/tools	CIS 4450 CIS 4550 CIS 5580

University of Detroit Mercy
Computer & Information Systems Department

Program	Learning Goal	Learning Objectives	Where Assessed
MS Software Production Management	A. Understand the software development lifecycle – Software Requirements Elicitation through Software Implementation and Maintenance	1. Analyze computer users' needs in order to design, construct, test and maintain computer application software or systems	CIS 5010 CIS 5200 CIS 5300 CIS 5400
		2. Ability to implement a complete requirements negotiation process	CIS 5010 CIS 5200 CIS 5300 CIS 5400
MS Software Production Management	B. Develop comprehensive knowledge of best practices as recommended by IEEE, ACM, ISO and CMI	1. Working knowledge of the principles and processes of software engineering project enactment	CIS 5050
		2. Ability to perform software project reviews and evaluations according to best practices	CIS 5350 CIS 5540
		3. Ability to implement best practice software engineering measurement processes	CIS 5200

University of Detroit Mercy
Computer & Information Systems Department

Program	Learning Goal	Learning Objectives	Where Assessed
		4. Apply appropriate ethical and moral standards to software production management	CIS 5200 CIS 5300
MS Software Production Management	C. Develop leadership skills as it relates to the IT project and program management	1. Lead and participate effectively in teams in the software development process.	CIS 5200
		2. Ability to direct a software project planning process, including determining deliverables; effort, schedule and cost estimation; resource allocation; risk management; quality and plan management	CIS 5050 CIS 5200 CIS 5300 CIS 5400
		3. Effectively communicate technical information verbally, in writing, and in presentations	CIS 5050 CIS 5200 CIS 5300 CIS 5400

University of Detroit Mercy
Computer & Information Systems Department

Program	Learning Goal	Learning Objectives	Where Assessed
MS Software Production Management	D. Develop management skills as it relates to the IT portfolio	1. Applying relevant methods to assess the important application development and deployment challenges involved in adopting various architectures	CIS 5050 CIS 5200 CIS 5250 CIS 5400
		2. Working knowledge of feasibility analyses, including processes and results interpretation	CIS 5050 CIS 5200 CIS 5200 CIS 5400
		3. Ability to organize and manage software project closure activities	CIS 5050
		4. Comprehensive knowledge of software engineering management tools, including selection and application	CIS 5050 CIS 5400
MS Software Production Management	E. Create and oversee productive and continuously improving software management control structures for large, complex and diverse organizations.	1. Use appropriate resources to stay abreast of the latest industry development tools and techniques.	CIS5300