



CyberSecurity and Networking

Information Systems & Technology Management
Typical Course Sequence | AAS Degree



	CORE COURSES			GENERAL EDUCATION	
1st Term	ISTM183A (3 cr) A+ Essentials Training in material appropriate to prepare for the CompTIA A+ Essentials cert.	ISTM183C (3 cr) Fundamentals of CyberSecurity An introduction to CyberSecurity including theory, basic techniques, and optimization of PCs and small networks	CIS151 (4 cr) Network Fundamentals A comprehensive program designed to teach student networking and internet-working technology skills through an understanding of the OSI model.	BA101 (4 cr) Intro to Business or any business management course	
2nd Term	ISTM183B (3 cr) A+ Practical Application Training in material appropriate to prepare for the CompTIA A+ Practical Application cert.	CIS152 (4 cr) Fundamentals of Routing Theory An introduction to routing technology, routing theory, and router configuration including VLSM, single-area OSPF and EIGRP.	CIS122 (4 cr) Computer Concepts III An introduction to programming	CIS125SS (3 cr) Spreadsheets Emphasis will be on spreadsheet creation, editing, formatting, copying, deleting and formula specification, spreadsheet functions, font selection, shading, borders	Human Relations (4 cr) Requirement (recommend HUM202—Ethics in the Workplace)
3rd Term	CIS125DB (3 cr) Desktop Databases Emphasis will be on creating and populating databases; creating an application system built around a database, multiple tables and queries; database administration	CIS154 (4 cr) Intermediate Routing Switching, WAN An introduction to: switching, VLANs, VTP, Inter-VLAN routing, PPP, ISDN and frame relay. Student is ready for CCNA cert exam.	Elective	MTH065 (4 cr) or MTH095 (5 cr) or MTH111 (5 cr) Beginning Algebra or higher. Level dependent on transfer option.	WR121 (4 cr) English Composition
4th Term	ISTM283A (3 cr) Disaster Recovery / Business Continuity Training in Disaster Recovery and Virtualization Technologies in preparation for relevant industry recognized certifications.	ISTM283B (3 cr) Security Strategies Focuses on the new risks, threats, and vulnerabilities associated with the Microsoft Windows operating system.	CIS284S (3 cr) Introduction to Computer Security Teaches students the technology and terminology behind modern computer security systems. Security+ cert specific	CIS279S (4 cr) Windows Server OS Provides a foundation for supporting Microsoft Windows Server OS including the skills to configure, customize, optimize, integrate, and troubleshoot networks	Health & PE (3 cr)
5th Term	ISTM283EA (3 cr) Ethical Hacker 1 Covers ethics and legal issues, footprinting, scanning, enumeration, system hacking, denial of service, social engineering, session hijacking, hacking Web servers. Prepares for CEHv7 cert.	CIS284NS (4 cr) Network Security Fundamentals Introduces students to the ever growing need for professionals trained in network security. Prepares students for CCNA Security cert.	WE280CAD (4 cr) Cooperative Education Internship This may be achieved over several terms as long as the total credits equal 4.	Elective	
6th Term	ISTM283D&DL (3+1 cr) Strategic Infrastructure Security Focus on security policies, risk analysis, penetration testing, patches and upgrades, and more.	ISTM283EB (3 cr) Ethical Hacker 2 Continuation of the ISTM283EA course. Prepares for CEHv7 cert.	ISTM297 (5 cr) Capstone Development Practicum Students select and explore a topic that both relates to their specific studies and their field of work.	Elective	

MHCC Faculty Adviser
 Dr. Wayne Machuca: 503-491-7631 Room 2781 machucaw@mhcc.edu
 Paul Morris: 503-491-7303 Room 2778 Paul.Morris@mhcc.edu

be | relevant

This is a sample schedule and courses are subject to change.

People requiring accommodations due to disability need to contact the Disability Services Office at 503-491-6923 or 503-491-7670 (TDD). Please call at least 2 weeks prior to event

Recommended Prereqs

CIS100	Careers in Computers
CIS120	Computer Concepts 1
CIS120L	Computer Concepts 1 - Lab
CIS125WP	Word
WR121	Writing

Electives

CIS140	Operating Systems	4	CIS197CSP	Client-Side Programming	3
CIS140U	UNIX/Linux Management	2	CIS197HTM	HTML	3
CIS140W	Windows O/S	2	CIS197WAA	Web Authoring: Applications	3
CIS145A	Forensics 1	3	CIS197XML	XML	4
CIS145B	Forensics 2	3	CIS244	System Analysis	3
CIS145C	Forensics 3	3	CIS295CMS	Content Management Systems	4
CIS195	Web Development 1	3	CIS276	SQL	4
			CIS277	PL/SQL	4
			CIS277BI	Oracle BI	4
			CIS277S	SQL Server	4
			CS160	Computer Science Orientation	3
			CS161	Computer Science 1	3
			CS162	Computer Science 2	3
			CS260	Data Structures	3