



# CyberSecurity and Networking

Information Systems & Technology Management  
Typical Course Sequence | AAS Degree



	CORE / PROGRAM SPECIFIC				GENERAL EDUCATION
1st Term	<b>ISTM183A (3 cr)</b> <b>A+ Essentials</b> Training in material appropriate to prepare for the <b>CompTIA A+ Essentials cert.</b>	<b>ISTM183C (3 cr)</b> <b>Fundamentals of CyberSecurity</b> An Introduction to CyberSecurity including theory, basic techniques, and optimization of PCs and small networks	<b>CIS151 (4 cr)</b> <b>Network Fundamentals</b> A comprehensive program designed to teach student networking and internetworking technology skills	<b>CIS Related Elective</b>	Health & PE (3 cr)
2nd Term	<b>ISTM183B (3 cr)</b> <b>A+ Practical Application</b> Training in material appropriate to prepare for the <b>CompTIA A+ Practical Application cert.</b>	<b>CIS152 (4 cr)</b> <b>Fundamentals of Routing Theory</b> An introduction to routing technology, router and switch configuration including VLSM, single-area OSPF and EIGRP	<b>CIS122 (4 cr)</b> <b>Computer Concepts III</b> An introduction to programming	<b>CIS125SS (3 cr)</b> <b>Spreadsheets</b> Emphasis will be on spreadsheet creation, editing, formatting, copying, deleting and formula specification, spreadsheet functions, font selection, shading, borders	BA267 (4 cr) Business Project Management
3rd Term	<b>CIS125DB (3 cr)</b> <b>Desktop Databases</b> Emphasis will be on creating and populating databases; creating an application system built around a database, multiple tables and queries; database administration	<b>CIS153 (4 cr)</b> <b>Scaling Networks</b> An introduction to: switching, VLANs, VTP, Inter-VLAN routing, and IPv6 configuring	<b>CIS Related Elective</b>	<b>WR121 (4 cr)</b> <b>English Composition</b>	MTH065 (4 cr) or MTH095 (5 cr) or MTH111 (5 cr) Beginning Algebra or higher. Level dependent on transfer option.
4th Term	<b>CIS288 (3 cr)</b> <b>Connecting Networks</b> An introduction to: WAN environment, VPNs, and wireless. Students are ready for the <b>CCNA certification exam</b>	<b>ISTM283B (3 cr)</b> <b>Security Strategies</b> Focuses on the new risks, threats, and vulnerabilities associated with the Microsoft Windows operating system.	<b>CIS279S (4 cr)</b> <b>Windows Server OS</b> Provides a foundation for supporting Microsoft Windows Server OS including the skills to configure, customize, optimize, integrate, and troubleshoot networks	<b>Human Relations (4 cr)</b> <b>Requirement (recommend HUM202—Ethics in the Workplace)</b>	
5th Term	<b>ISTM283EA (3 cr)</b> <b>Ethical Hacking I</b> Covers ethics and legal issues, footprinting, scanning, enumeration, system hacking, denial of service, social engineering, session hijacking, hacking Web servers.. Prepares for <b>CEHv7 cert.</b>	<b>ISTM283A (3 cr)</b> <b>Fundamentals of Disaster Recovery &amp; Business Continuity</b>	<b>CIS284S (3 cr)</b> <b>Introduction to Computer Security</b> Teaches students the technology and terminology behind modern computer security systems. This is S+ certification specific	<b>WE280CAD (4 cr)</b> <b>Cooperative Education Internship</b>	
6th Term	<b>ISTM283D&amp;DL (4 cr)</b> <b>Security Strategies</b> Focuses on security policies, risk analysis, penetration testing, patches and upgrades, and firewall configuration.	<b>ISTM283EB (3 cr)</b> <b>Ethical Hacking II</b> Continuation of the ISTM283EA course. Prepares for <b>CEHv7 cert.</b>	<b>CIS284NS (4 cr)</b> <b>Network Security Fundamentals</b> Introduces students to the ever growing need for professionals trained in network security	<b>CIS297 (5 cr)</b> <b>Capstone Development Practicum</b> Students select and explore a topic that both relates to their specific studies and their field of work.	

**MHCC Faculty Adviser**  
 Dr. Wayne Machuca: 503-491-7631 Room 2776 [machuca@mhcc.edu](mailto:machuca@mhcc.edu)  
 Paul Morris: 503-491-7303 Room 2778 [Paul.Morris@mhcc.edu](mailto: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