

Computer Networking Cybersecurity (2014)

9.3 CAREER AND TECHNICAL EDUCATION 9.3

IT. INFORMATION TECHNOLOGY (IT) 9.3.IT

- 1 Demonstrate effective professional communication skills and practices that enable positive customer relationships. 9.3.IT.1
- 2 Use product or service design processes and guidelines to produce a quality information technology (IT) product or service. 9.3.IT.2
- 3 Demonstrate the use of cross-functional teams in achieving IT project goals. 9.3.IT.3
- 4 Demonstrate positive cyber citizenry by applying industry accepted ethical practices and behaviors. 9.3.IT.4
- 5 Explain the implications of IT on business development. 9.3.IT.5
- 6 Describe trends in emerging and evolving computer technologies and their influence on IT practices. 9.3.IT.6
- 7 Perform standard computer backup and restore procedures to protect IT information. 9.3.IT.7
- 8 Recognize and analyze potential IT security threats to develop and maintain security requirements. 9.3.IT.8
- 9 Describe quality assurance practices and methods employed in producing and providing quality IT products and services. 9.3.IT.9
- 10 Describe the use of computer forensics to prevent and solve information technology crimes and security breaches. 9.3.IT.10
- 12 Demonstrate knowledge of the hardware components associated with information systems. 9.3.IT.12
- 13 Compare key functions and applications of software and determine maintenance strategies for computer systems. 9.3.IT.13

IT-SUP. INFORMATION SUPPORT & SERVICES (IT-SUP) 9.3.IT-SUP

- 1 Provide technology support to maintain service. 9.3.IT-SUP.1
- 2 Manage operating systems and software applications, including maintenance of upgrades, patches and service packs. 9.3.IT-SUP.2
- 3 Apply appropriate troubleshooting techniques in resolving computer hardware, software and configuration problems. 9.3.IT-SUP.3
- 4 Perform installation, configuration and maintenance of operating systems. 9.3.IT-SUP.4
- 5 Demonstrate the use of networking concepts to develop a network. 9.3.IT-SUP.5
- 6 Evaluate the effectiveness of an information system. 9.3.IT-SUP.6
- 7 Employ system installation and maintenance skills to setup and maintain an information system. 9.3.IT-SUP.7
- 8 Employ system administration and control skills to monitor the performance of an information system. 9.3.IT-SUP.8
- 9 Employ technical writing and documentation skills in support of an information system. 9.3.IT-SUP.9
- 10 Apply quality assurance processes to maximize information system operation. 9.3.IT-SUP.10

IT-NET. NETWORK SYSTEMS (IT-NET) 9.3.IT-NET

- 1 Analyze customer or organizational network system needs and requirements. 9.3.IT-NET.1
- 2 Analyze wired and wireless network systems to determine if they meet specifications (e.g., IEEE, power and security). 9.3.IT-NET.2
- 3 Design a network system using technologies, tools and standards. 9.3.IT-NET.3
- 4 Perform network system installation and configuration. 9.3.IT-NET.4
- 5 Perform network administration, monitoring and support to maintain a network system. 9.3.IT-NET.5

IT-PRG. PROGRAMMING & SOFTWARE DEVELOPMENT (IT-PRG) 9.3.IT-PRG

- 1 Analyze customer software needs and requirements. 9.3.IT-PRG.1
- 2 Demonstrate the use of industry standard strategies and project planning to meet customer specifications. 9.3.IT-PRG.2
- 3 Analyze system and software requirements to ensure maximum operating efficiency. 9.3.IT-PRG.3
- 4 Demonstrate the effective use of software development tools to develop software applications. 9.3.IT-PRG.4
- 5 Apply an appropriate software development process to design a software application. 9.3.IT-PRG.5
- 6 Program a computer application using the appropriate programming language. 9.3.IT-PRG.6
- 7 Demonstrate software testing procedures to ensure quality products. 9.3.IT-PRG.7
- 8 Perform quality assurance tasks as part of the software development cycle. 9.3.IT-PRG.8
- 9 Perform software maintenance and customer support functions. 9.3.IT-PRG.9
- 10 Design, create and maintain a database. 9.3.IT-PRG.10

IT-WD. WEB & DIGITAL COMMUNICATIONS (IT-WD) IT-WD

- 1 Analyze customer requirements to design and develop a Web or digital communication product. 9.3.IT-WD.1
- 2 Apply the design and development process to produce user-focused Web and digital communications solutions. 9.3.IT-WD.2
- 3 Write product specifications that define the scope of work aligned to customer requirements. 9.3.IT-WD.3
- 4 Demonstrate the effective use of tools for digital communication production, development and project management. 9.3.IT-WD.4
- 5 Develop, administer and maintain Web applications. 9.3.IT-WD.5
- 6 Design, create and publish a digital communication product based on customer needs. 9.3.IT-WD.6
- 7 Evaluate the functionality of a digital communication product using industry accepted techniques and metrics. 9.3.IT-WD. I 7
- 8 Implement quality assurance processes to deliver quality digital communication products and services. 9.3.IT-WD.8
- 9 Perform maintenance and customer support functions for digital communication products. 9.3.IT-WD.9
- 10 Comply with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications. 9.3.IT-WD.10