



Tooele Technical College

88 S Tooele Blvd, Tooele, UT 84074

435-248-1800

Certificate Syllabus	Cybersecurity
Certificate of Proficiency (Catalog Year: 2020)	
Tooele Tech Core (960 hours required)	Hours
<i>Cybersecurity (960 hours required)</i>	<i>Hours</i>
<i>Computer Literacy for IT (ITEC1011)</i>	90.00
<i>Computing Basics (1)</i>	15.00
<i>Micorsoft Word (2)</i>	20.00
<i>Microsoft Excel (3)</i>	20.00
<i>Microsoft PowerPoint (4)</i>	20.00
<i>Microsoft Access (5)</i>	15.00
<i>Workplace Relations (WKSK1503)</i>	30.00
<i>Managing and organizing yourself (1)</i>	10.00
<i>Communication (2)</i>	10.00
<i>Problem Solving (3)</i>	5.00
<i>Leadership and Teamwork (4)</i>	5.00
<i>A+ Essentials and Practical Applications (Computer Based Training) (ITEC1900A)</i>	90.00
<i>1.0 Computing Overview (1)</i>	5.00
<i>PC Technician Responsibilities (2)</i>	5.00
<i>System Components (3)</i>	5.00
<i>Peripheral Devices (4)</i>	5.00
<i>Storage (5)</i>	5.00
<i>Networking (6)</i>	5.00
<i>Wireless Networking (7)</i>	5.00
<i>Printing (8)</i>	5.00
<i>Mobile Devices (9)</i>	5.00
<i>System Implementation (10)</i>	5.00
<i>File Management (11)</i>	5.00
<i>System Implementation (12)</i>	5.00
<i>Security (13)</i>	5.00
<i>Capstone Exercise (14)</i>	10.00
<i>PC Pro Certification Practice Exams (15)</i>	15.00
<i>A+ Essentials and Practical Applications I (ITEC1901)</i>	90.00
<i>Taking a Computer Apart and Putting it Back Together (1)</i>	9.00
<i>All About Motherboards (2)</i>	9.00
<i>Processors and Memory (3)</i>	9.00
<i>Power Supplies and Troubleshooting a Computer Problems (4)</i>	9.00

<i>Hard Drives and Other Storage Devices (5)</i>	9.00
<i>Supporting I/O Devices (6)</i>	9.00
<i>Setting up a Local Network (7)</i>	9.00
<i>Network Infrastructure and Troubleshooting (8)</i>	9.00
<i>Supporting Mobile Devices (9)</i>	9.00
<i>Customizing Systems, Virtualization Networks, and Managing Printers (10)</i>	9.00
A+ Essentials and Practical Applications II (ITEC1902)	90.00
<i>Comparing Operating Systems and User Experience (1)</i>	9.00
<i>Installing Operating Systems (2)</i>	9.00
<i>Maintaining Windows (3)</i>	9.00
<i>Optimizing Windows (4)</i>	9.00
<i>Troubleshooting Windows Startup (5)</i>	9.00
<i>Securing Windows Resources (6)</i>	9.00
<i>Security Strategies (7)</i>	9.00
<i>Linux and MacOS (8)</i>	9.00
<i>Final and Certification Practice time (9)</i>	18.00
CompTIA A+ Certification Practice Exams (ITEC1903)	30.00
<i>CompTIA A+ 220-1001 Practice Exams TestOut PC Pro (1)</i>	15.00
<i>CompTIA A+ 220-1002 Practice Exams TestOut PC Pro (2)</i>	15.00
Network + (CBT) (ITEC2001)	90.00
<i>0.0 Introduction (1)</i>	1.00
<i>1.0 Networking Basics (2)</i>	4.00
<i>2.0 Cables and Connectors (3)</i>	5.00
<i>3.0 Networking Devices (4)</i>	5.00
<i>4.0 Ethernet (5)</i>	5.00
<i>5.0 IP Configuration (6)</i>	5.00
<i>6.0 Switch Management (7)</i>	5.00
<i>7.0 Routing (8)</i>	5.00
<i>8.0 Firewalls (9)</i>	5.00
<i>9.0 Network Customization (10)</i>	5.00
<i>10.0 Wireless Networking (11)</i>	5.00
<i>11.0 Wide Area Networks (WANs) (12)</i>	5.00
<i>12.0 Network Policies and Procedures (13)</i>	5.00
<i>13.0 Network Security (14)</i>	5.00
<i>14.0 Network Hardening (15)</i>	5.00
<i>15.0 Network Management (16)</i>	5.00
<i>16.0 Network Optimization (17)</i>	5.00
<i>Network Pro Practice Exams (18)</i>	5.00
<i>Network+ Practice Exams (19)</i>	5.00
Network + (ITEC2000)	120.00
<i>Introduction to Networking (1)</i>	9.00
<i>Network Infrastructure and Documentation (2)</i>	9.00
<i>Addressing on Networks (3)</i>	9.00
<i>Network Protocols and Routing (4)</i>	9.00

<i>Network Cabling (5)</i>	9.00
<i>Wireless Networking (6)</i>	9.00
<i>Virtualization and Cloud Computing (7)</i>	9.00
<i>Subnets and VLANs (8)</i>	9.00
<i>Network Risk Management (9)</i>	9.00
<i>Security in Network Design (10)</i>	9.00
<i>Network Performance and Recovery (11)</i>	9.00
<i>Wide Area Networks (12)</i>	9.00
<i>Final Test and Preparation for CompTIA Net+ Exam (13)</i>	12.00
Security+ SY0-501 (CBT) (ITEC2010)	120.00
<i>Introduction (1)</i>	10.00
<i>Security Basics (2)</i>	10.00
<i>Policies, Procedures, and Awareness (3)</i>	10.00
<i>Physical (4)</i>	10.00
<i>Perimeter (5)</i>	10.00
<i>Network (6)</i>	10.00
<i>Host (7)</i>	10.00
<i>Application (8)</i>	10.00
<i>Data (9)</i>	10.00
<i>Security Pro Practice Exams (10)</i>	10.00
<i>CompTIA Security+ Practice Exams (11)</i>	20.00
Security+ SY0-501 (ITEC2015)	120.00
<i>Introduction to Security (1)</i>	7.00
<i>Malware and Social Engineering Attacks (2)</i>	7.00
<i>Basic Cryptography (3)</i>	7.00
<i>Advanced Cryptography and PKI (4)</i>	7.00
<i>Networking and Server Attacks (5)</i>	7.00
<i>Network Security Devices, Design, and Technology (6)</i>	7.00
<i>Administering a Secure Network (7)</i>	7.00
<i>Wireless Network Security (8)</i>	7.00
<i>Client and Application Security (9)</i>	7.00
<i>Mobile and Embedded Device Security (10)</i>	7.00
<i>Authentication and Account Management (11)</i>	7.00
<i>Access Management (12)</i>	7.00
<i>Vulnerability Assessment and Data Security (13)</i>	7.00
<i>Business Continuity (14)</i>	7.00
<i>Risk Mitigation (15)</i>	7.00
<i>Final and Exam Prep (16)</i>	15.00
Hands-On Ethical Hacking and Network Defense (ITEC2020)	90.00
<i>Ethical Hacking Overview (1)</i>	6.00
<i>TCP/IP Concepts Review (2)</i>	6.00
<i>Network and Computer Attacks (3)</i>	6.00
<i>Footprinting and Social Engineering (4)</i>	6.00
<i>Port Scanning (5)</i>	6.00

<i>Enumeration (6)</i>	6.00
<i>Programming for Security Professionals (7)</i>	6.00
<i>Desktop and Server OS Vulnerabilities (8)</i>	6.00
<i>Embedded Operating Systems: The Hidden Threat (9)</i>	6.00
<i>Hacking Web Servers (10)</i>	6.00
<i>Hacking Wireless Networks (11)</i>	6.00
<i>Cryptography (12)</i>	6.00
<i>Network Protection Systems (13)</i>	6.00
<i>Final (14)</i>	12.00
Tooele Tech Elective (360 hours required)	Hours
<i>Cybersecurity (360 hours required)</i>	Hours
Cisco CCNA: Introduction to Networks (ITEC1610)	90.00
<i>Explore the Network Pre-Test Exam (1)</i>	6.00
<i>Configure a Network Operating System (2)</i>	6.00
<i>Network Protocols and Communications (3)</i>	6.00
<i>Network Access (4)</i>	6.00
<i>Ethernet (5)</i>	6.00
<i>Network layer (6)</i>	6.00
<i>IP Addressing (7)</i>	6.00
<i>Subnetting IP Networks (8)</i>	6.00
<i>Transport Layer (9)</i>	6.00
<i>Application Layer (10)</i>	6.00
<i>Build a Small Network (11)</i>	6.00
<i>Hands On Skills Exam (12)</i>	12.00
<i>Final Exam (13)</i>	12.00
Cisco CCNA: Routing and Switching Essentials (ITEC1615)	90.00
<i>Routing Concepts Pre-Test exam (1)</i>	8.00
<i>Static Routing (2)</i>	6.00
<i>Routing Dynamically (3) (3)</i>	6.00
<i>Switched Networks (4)</i>	6.00
<i>Switch Configuration (5)</i>	6.00
<i>VLAN's (6)</i>	6.00
<i>Access Control Lists (7)</i>	8.00
<i>DHCP (8)</i>	6.00
<i>NAT for IPv4 (9)</i>	6.00
<i>Device Discovery, Management, and Maintenance (10)</i>	8.00
<i>Hands on Skill Exam (11)</i>	12.00
<i>Final Exam (12)</i>	12.00
Cisco CCNA: Scaling Networks (ITEC1620)	90.00
<i>LAN Design Pre-Test exam (1)</i>	7.00
<i>Scaling VLANS (2)</i>	7.00
<i>STP (3)</i>	7.00
<i>EtherChannel and HSRP (4)</i>	7.00
<i>Dynamic Routing (5)</i>	7.00

<i>EIGRP (6)</i>	7.00
<i>EIGRP Tuning and Troubleshooting (7)</i>	7.00
<i>Single-Area OSPF (8)</i>	7.00
<i>Multiarea OSPF (9)</i>	7.00
<i>OSPF Tuning and Troubleshooting (10)</i>	7.00
<i>Hands on Skills Exam (11)</i>	10.00
<i>Final (12)</i>	10.00
<i>Cisco CCNA: Connecting Networks (ITEC1625)</i>	90.00
<i>WAN Concepts (1)</i>	8.00
<i>Point to Point Connections (2)</i>	8.00
<i>Branch Connections (3)</i>	8.00
<i>Access Control Lists (4)</i>	8.00
<i>Network Security and Monitoring (5)</i>	8.00
<i>Quality of Service (6)</i>	8.00
<i>Network Evolution (7)</i>	8.00
<i>Network Troubleshooting (8)</i>	8.00
<i>Hands on Skill Exam (9)</i>	12.00
<i>Final (10)</i>	14.00
<i>Windows Server Pro 2016 CBT (70-740) (ITEC2030)</i>	120.00
<i>Introduction to Windows Server (1)</i>	2.00
<i>Server Installation (2)</i>	4.00
<i>Server Configuration and Management (3)</i>	6.00
<i>Networking (4)</i>	5.00
<i>Server Storage (5)</i>	7.00
<i>Hyper-V (6)</i>	7.00
<i>Active Directory (7)</i>	9.00
<i>Group Policy (8)</i>	8.00
<i>DNS (9)</i>	6.00
<i>File and Share Access (10)</i>	6.00
<i>Print and Document Services (11)</i>	4.00
<i>Server Management (12)</i>	7.00
<i>DHCP (13)</i>	5.00
<i>Containers (14)</i>	4.00
<i>High Availability (15)</i>	8.00
<i>Server Pro Practice Exams (16)</i>	16.00
<i>Microsoft 70-740 Practice Exams (17)</i>	16.00
<i>Installation, Storage, and Compute with Windows Server 2016 (ITEC2031)</i>	120.00
<i>Introducing Windows Server 2016 (1)</i>	4.00
<i>Installing, Upgrading, and Migrating Servers and Workloads (2)</i>	6.00
<i>Configuring Disks and Volumes (3)</i>	6.00
<i>Implementing Server Storage (4)</i>	6.00
<i>Implementing Data Deduplication (5)</i>	6.00
<i>Creating, Managing, and Maintaining Images for Deployment (6)</i>	6.00
<i>Installing and Configuring Hyper-V (7)</i>	6.00

<i>Configuring Virtual Machine (VM) Settings (8)</i>	6.00
<i>Configuring Hyper-V Storage (9)</i>	6.00
<i>Configuring Hyper-V Networking (10)</i>	6.00
<i>Installing and Configuring the Windows Nano Server (11)</i>	6.00
<i>Deploying and Managing Windows Containers (12)</i>	6.00
<i>Implementing Failover Clustering (13)</i>	6.00
<i>Managing Failover Clustering (14)</i>	6.00
<i>Implementing High Availability and Disaster Recovery Options in Hyper-V (15)</i>	6.00
<i>Implementing Storage Spaces Direct (16)</i>	6.00
<i>Implementing Network Load Balancing (NLB) (17)</i>	6.00
<i>Maintaining Server Installations (18)</i>	6.00
<i>Monitoring Server Installations (19)</i>	7.00
<i>Study for the 70-740 Exam (20)</i>	7.00
Windows Server Pro 2016 Networking CBT (70-741) (ITEC2032)	60.00
<i>Server Pro 2016: Networking Introduction (1)</i>	1.00
<i>DNS (2)</i>	10.00
<i>TCP/IP (3)</i>	4.00
<i>DHCP (4)</i>	8.00
<i>IP Address Management (IPAM) (5)</i>	3.00
<i>Routing and Remote Access (RRAS) (6)</i>	4.00
<i>DirectAccess (DA) (7)</i>	2.00
<i>Network Policy Server (NPS) (8)</i>	3.00
<i>Distributed File System (DFS) and BranchCache (9)</i>	4.00
<i>High Performance Network Solutions (10)</i>	3.00
<i>Implement Software-Defined Networking (SDN) (11)</i>	2.00
<i>TestOut Server Pro 2016: Networking -Practice Exams (12)</i>	8.00
<i>Microsoft 70-741 Practice Exams (13)</i>	8.00
Networking with Windows Server 2016 (70-741) (ITEC2033)	120.00
<i>Implementing IPv4 and IPv6 Addressing (1)</i>	8.00
<i>Installing and Configuring DNS Servers (2)</i>	9.00
<i>Creating and Configuring DNS Zones and Records (3)</i>	9.00
<i>Installing and Configuring DHCP (4)</i>	8.00
<i>Managing and Maintaining DHCP (5)</i>	8.00
<i>Installing and Configuring IP Address Management (IPAM) (6)</i>	8.00
<i>Managing and Using IPAM (7)</i>	8.00
<i>Implement Network Connectivity Solutions (8)</i>	9.00
<i>Implementing Virtual Private Network (VPN) and DirectAccess Solutions (9)</i>	9.00
<i>Implementing Network Policy Server (NPS) (10)</i>	9.00
<i>Implementing Distributed File System (DFS) and Branch Office Solutions (11)</i>	9.00
<i>Implementing High-Performance Network solutions (12)</i>	9.00
<i>Determining Scenarios and Requirements for Implementing Software Defined Networking (SDN) (13)</i>	9.00
<i>Final and Study for the Microsoft 70-741 Exam (14)</i>	8.00
Windows Server Pro 2016 Identity CBT (70-742) (ITEC2034)	60.00
<i>Server Pro 2016: Identity Introduction (1)</i>	1.00

<i>Install Active Directory (2)</i>	5.00
<i>Plan Active Directory (3)</i>	5.00
<i>Manage Active Directory Objects (4)</i>	6.00
<i>Managing the Active Directory Database (5)</i>	5.00
<i>Group Policy (6)</i>	8.00
<i>AD Certificate Services (7)</i>	6.00
<i>Active Directory Federation Services (AD FS) (8)</i>	5.00
<i>Active Directory Rights Management Services (AD RMS) (9)</i>	5.00
<i>TestOut Server pro 2016: Identity - Practice Exams (10)</i>	6.00
<i>Microsoft 70-742 Certification Practive Exams (11)</i>	8.00
Identity with Windows Server 2016 (70-742) (ITEC2035)	120.00
<i>Installing and Configuring Domain Controllers (1)</i>	7.00
<i>Configuring and Managing Active Directory Users and Computers (2)</i>	7.00
<i>Creating and Managing Active Directory Groups and Organizational Units (OUS) (3)</i>	7.00
<i>Configuring Service Authentication and Account Policies (4)</i>	7.00
<i>Maintaining Active Directory (5)</i>	7.00
<i>Configuring Active Directory in a Complex Enterprise Environments (6)</i>	7.00
<i>Creating and Managing Group Policy Objects (GPOs) (7)</i>	7.00
<i>Configuring Group Policy Processing (8)</i>	7.00
<i>Configuring Group Policy Settings (9)</i>	7.00
<i>Configuring Group Policy Preferences (10)</i>	7.00
<i>Installing and Configuring Active Directory Certificate Services (11)</i>	7.00
<i>Managing Certificates (12)</i>	7.00
<i>Installing and Configuring Active Directory Federation Services (13)</i>	7.00
<i>Implementing Web Application Proxy (WAP) (14)</i>	7.00
<i>Installing and Configuring Active Directory Rights Management Services (AD RMS) (15)</i>	7.00
<i>70-742 Final and Certification Prep (16)</i>	15.00
TestOut Linux Pro (ITEC2040)	120.00
<i>Using Linux (1)</i>	12.00
<i>Installation and Localization (2)</i>	2.00
<i>Boot and Shutdown (3)</i>	5.00
<i>User Interfaces and Desktops (4)</i>	2.00
<i>Software Intallation (5)</i>	5.00
<i>Usesrs and Groups (6)</i>	5.00
<i>Disk and File System Management (7)</i>	12.00
<i>Hardware Installation (8)</i>	3.00
<i>Processes and System Services (9)</i>	10.00
<i>Sysetm Monitoring (10)</i>	6.00
<i>Networking (11)</i>	8.00
<i>Security (12)</i>	8.00
<i>LPI-1/CompTIA Linux+ LX0-103 Supplemental Material (13)</i>	6.00
<i>TestOut Linux Pro Practice Exams (14)</i>	12.00
<i>CompTIA Linux+LX0-103 Practice Exams (15)</i>	12.00
<i>CompTIA Linux+LX0-104 Practice Exams (16)</i>	12.00

<i>Linux Fundamentals (ITEC2041)</i>	120.00
<i>An Introduction to Linux (1)</i>	7.00
<i>Linux Installation and Usage (2)</i>	7.00
<i>Exploring Linux File Systems (3)</i>	7.00
<i>Linux File System Management (4)</i>	7.00
<i>Linux File System Administration (5)</i>	8.00
<i>Linux Server Deployment (6)</i>	8.00
<i>Working with the BASH Shell (7)</i>	8.00
<i>System Initialization and X Windows (8)</i>	8.00
<i>Managing Linux Processes (9)</i>	8.00
<i>Common Administrative Tasks (10)</i>	8.00
<i>Compression, System Backup, and Software Installation (11)</i>	8.00
<i>Network Configuration (12)</i>	8.00
<i>Configuring Network Services (13)</i>	8.00
<i>Troubleshooting, Performance, and Security (14)</i>	8.00
<i>Final Test and Preparing for CompTIA LX0-103, LX0-104 (15)</i>	12.00
KALI Linux (ITEC2042)	120.00
<i>About KALI LINUX (1)</i>	9.00
<i>Getting Started with KALI (2)</i>	9.00
<i>Linux Fundamentals (3)</i>	9.00
<i>Installing KALI LINUX (4)</i>	9.00
<i>Configuring KALI LINUX (5)</i>	9.00
<i>Getting Help (6)</i>	9.00
<i>Securing and Monitoring KALI (7)</i>	9.00
<i>Debian Package Management (8)</i>	9.00
<i>Advance Usage (9)</i>	9.00
<i>KALI LINUX in the Enterprise (10)</i>	9.00
<i>Intro to Security Assessments (11)</i>	9.00
<i>The Road Ahead (12)</i>	9.00
<i>Final and Certification Study (13)</i>	12.00
Tooele Tech Recommended Course (0 hours required)	Hours
<i>Keyboarding Basics (0 hours required)</i>	Hours
<i>Keyboarding Basics (BTEC1000)</i>	30.00
<i>Lesson 1-6 (1)</i>	10.00
<i>Lesson 7-12 (2)</i>	10.00
<i>Lesson 13-18 & final assessment (3)</i>	10.00