Foundational Courses

TEIT 1050 Career and Workplace Relations — 1 Credit / 30 Clock-Hours

Career and Workplace Relations is designed to help students gain insight into how their skills and professionalism enhance relationships between management and coworkers. Instruction includes employment skills such as communication, critical thinking, professional etiquette, team dynamics and more.

Objectives:
- Identify personal and transferable skills, competencies and/or abilities.
- Create an industry specific resume, cover letter, thank you letter, reference list, and online presence.
- Demonstrate effective interviewing skills.
- Submit an application for an industry specific position.
- Demonstrate effective use of job search websites.

TEIT 1170 Computer Networks I — 2 Credits / 60 Clock-Hours

Computer Networks I explores common computer networking models, network device installation and configuration, switching and routing technologies, IP address configuration, basic wireless network configuration, and network troubleshooting tools and methodology. This course aligns with objectives from popular networking certifications.

Objectives:
- Differentiate the purpose of each layer in the Open Systems Interconnection (OSI) model.
- Install and configure common networking devices, components, and services.
- Identify characteristics of switching and routing technologies and features.
- Plan and configure IPv4 and IPv6 network addresses and services.
- Configure a small office/home office (SOHO) wireless network.
- Use the appropriate methodology, tools, and protocols to troubleshoot and resolve networking issues.

TEIT 1200 A+ Core I — 3 Credits / 90 Clock-Hours

A+ Core I prepares students to be successful computer technicians, capable of installing, maintaining, troubleshooting, optimizing, and securing desktop computers, laptops, mobile devices, and printers. This course aligns with objectives of the CompTIA A+ Core 1 certification exam.

Objectives:
- Install and configure computer hardware components and peripheral devices.
- Identify and configure basic networking components and protocols.
- Install and configure laptops and other mobile devices.
- Diagnose and troubleshoot device and network issues.
- Compare and contrast cloud computing concepts.
- Configure client-side virtualization.

TEIT 1210 A+ Core II **3 Credits / 90 Clock-Hours**

A+ Core II is a follow-up to A+ Core1 and provides further instruction on installation, configuration, maintenance, and security of various common operating systems and platforms. This course aligns with the objectives of the CompTIA A+ Core 2 certification exam.

Objectives:
• Install and Configure Windows, Mac, and Linux.
• Identify best practices for safety, environmental impacts, communication, and professionalism.
• Troubleshoot common operating system, malware, and security issues.
• Identify basic vulnerabilities and protect against threats.
• Install, configure, and maintain software in computers and mobile devices.

TEIT 1300 Linux Foundations **2 Credits / 60 Clock-Hours**

Linux Foundations focuses on the installation, configuration, and process management of a Linux workstation. Students explore shell programming, file system management, user accounts, access and permissions, and application installation and management.

Objectives:
• Install and maintain a Linux workstation.
• Configure Linux from the GUI and command line.
• Configure file and access permissions.
• Perform maintenance tasks including user management, backup and restore, shut down, and reboot.

Supplemental Courses Varies by Institution

Bridgerland

TEDA 1031 Python Fundamentals **3 Credits / 90 Clock-Hours**

This course teaches fundamental Python skills tailored for data analysis, encompassing Python's core syntax, data structures, and procedural programming techniques. Students perform data cleaning, data manipulation, and exploratory analysis using industry-standard libraries, fostering expertise in managing, analyzing, and visualizing data. Through practical projects, learners refine their abilities, gaining confidence to proficiently handle, analyze, and present data using Python. This course cultivates real-world application skills and sharpens proficiency in data project documentation, serving as a strong foundation for future data science endeavors.

Objectives:
• Describe core Python syntax, data structures, and procedural programming concepts within a Python Integrated Development Environment (IDE).
• Identify specific features and functionalities of the Python IDE, becoming proficient in executing tasks and optimizing workflows within the development environment.
• Clean, manipulate, and analyze data using industry-standard libraries within a Python IDE.
• Illustrate statistical analysis techniques by incorporating loops, joins, functions and decision-making skills.
• Characterize relevant business conclusions as revealed by the data using plots, data frames and aggregation.
• Document and present the project's findings using standard documentation practices.

TEIT 1040 Introduction to Virtualization **1 Credit / 30 Clock-Hours**

Introduction to Virtualization explores what virtualization is and the critical role it plays in IT. Learn how to install, configure, and maintain virtual machines as well as the availability, applications, and virtual appliances, including their role in virtualization.

Objectives:
• Explore virtualization and the benefits gained from a virtual environment.
• Demonstrate how to enable virtualization on a host system.
• Install operating systems on virtual machines.
• Import/Export virtual machines for use in different virtualization platforms.
• Configure basic processing, memory, storage, and networking in a virtual environment.
• Demonstrate how to copy, backup, and restore virtual machines.

TEIT 1290 Linux Computing with Raspberry Pi **2 Credits / 60 Clock-Hours**

This course will provide students the opportunity to use the Linux operating system to create ten useful projects using a Raspberry Pi computer and various peripherals.

Objectives:
• Explain basic functionality and limitations of Raspberry Pi computers.
• Demonstrate programming using Raspbian and other Linux-based operating systems.
• Explore thousands of project ideas that can be created using Linux and a Raspberry Pi.
• Troubleshoot software and hardware errors.
• Create ten useful projects using a Raspberry Pi computer.

TEIT 1400 Introduction to Cloud **2 Credits / 60 Clock-Hours**

Introduction to Cloud provides instruction on core cloud computing concepts, services, and solutions as well as foundational knowledge from a business value perspective of the benefits and considerations for cloud computing implementation. Included is an overview of popular cloud platforms.

Objectives:
• Define the value proposition of cloud computing.
• Identify core cloud concepts, services, solutions, and management tools.
• Demonstrate an understanding of cloud security considerations, features, and best practices.
• Describe cloud identity, governance, privacy, and compliance concepts and features.
• Compare and contrast cloud pricing models and identify cost management solutions.
• Define cloud deployment models, methods, and operations.

TEIT 1800 Certification Test Prep I **1 Credit / 30 Clock-Hours**

Certification Test Prep I provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1810 Certification Test Prep II **1 Credit / 30 Clock-Hours**

Certification Test Prep II provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1820 Certification Test Prep III **1 Credit / 30 Clock-Hours**

Certification Test Prep III provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1830 Certification Test Prep IV **1 Credit / 30 Clock-Hours**

Certification Test Prep IV provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 2140 Network Traffic Analysis **1 Credit / 30 Clock-Hours**

This course provides instruction on the fundamental basics of network traffic analysis. This course will cover the process of recording, reviewing, and analyzing network traffic for performance, security and/or general network operations and management.

Objectives:
• Describe and evaluate network utilization.
• Record, filter and analyze different types of network traffic.
• Demonstrate use of network analysis tools.
• Identify types of network connections.

TEIT 2170 Computer Networks II **3 Credits / 90 Clock-Hours**

Computer Networks II examines network design and architecture considerations, network documentation, change management, network monitoring methods and solutions, configuration management, network security hardening techniques, and basic datacenter, cloud, and virtual-network concepts. This course aligns with objectives from popular networking certifications.

Objectives:
• Compare and contrast networking appliances, applications, and functions.
• Identify the purpose of organizational processes and procedures.
• Use protocols, tools, and techniques to monitor network activity and troubleshoot performance and availability issues.
• Identify and implement network defense techniques, security features, and security solutions.
• Configure secure enterprise wireless networks.
• Identify basic datacenter, cloud, and virtual-networking concepts.
• Compare and contrast network access and management methods.

TEIT 2200 Security + **4 Credits / 120 Clock-Hours**

Security+ provides instruction on assessing the security posture of enterprise environments and implementing appropriate security solutions. Instruction is given to identify, analyze, and respond to events and incidents. This course aligns with the objectives of the CompTIA Security+ certification exam.

Objectives:
• Explain security functions and purposes as they relate to network devices.
• Identify and implement risk mitigation techniques and strategies.
• Distinguish and evaluate different network and physical security threats.
• Implement network intrusion detection and prevention technologies.
• Identify and execute appropriate cryptography measures.

TEIT 2900 IT Externship **2 Credits / 90 Clock-Hours**

Students will have the opportunity to develop real-world work experiences using knowledge and skills they have obtained in the program. Students will gain practical application of classroom skills through actual work situations. IT projects will be assigned to the student by cooperative businesses. Students will receive objective feedback on their performance each month. Customized student learning objectives will be developed addressing the individual needs of the organization and career interests of each student by the cooperative business and the student.

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Demonstrate ability to work independently.
• Demonstrate ability to receive constructive criticism.
• Write cooperatively with faculty and agency to create personalized objectives to be accomplished during the internship.

TEIT 2998 Service Desk Internship **2 Credits / 90 Clock-Hours**

This course provides instruction on customer support, technical documentation, and advanced troubleshooting techniques in a service desk environment. Students will have opportunities to work directly with customers' personal equipment in a supervised environment. (Requires adviser approval).

Objectives:
• Demonstrate Advanced troubleshooting techniques and processes.
• Document product, customer, and repair information in database.
• Demonstrate how to find and research information to properly diagnose and repair personal computers

Davis

TEIT 1000 Information Technology Fundamentals **2 Credits / 60 Clock-Hours**

The Information Technology Fundamentals course provides an overview of the various career pathways related to working with computers. Throughout the class, students will be introduced to computers, including their history, hardware, operating systems, system support, programming languages, software, databases, networking, data storage, and system security. During this course, the student will perform essential IT tasks commonly performed by end-users and entry-level IT professionals.

Objectives:
• Identify the major components of a computer and understand their function.
• Compare and contrast the differences between various operating systems.
• Demonstrate an understanding of basic principles of software and database development.
• Identify foundational terms used in computing.
• Identify security issues affecting the use of computers and networks.

TEIT 1040 Introduction to Virtualization **1 Credit / 30 Clock-Hours**

Introduction to Virtualization explores what virtualization is and the critical role it plays in IT. Learn how to install, configure, and maintain virtual machines as well as the availability, applications, and virtual appliances, including their role in virtualization.

Objectives:
• Explore virtualization and the benefits gained from a virtual environment.
• Demonstrate how to enable virtualization on a host system.
• Install operating systems on virtual machines.
• Import/Export virtual machines for use in different virtualization platforms.
• Configure basic processing, memory, storage, and networking in a virtual environment.
• Demonstrate how to copy, backup, and restore virtual machines.

TEIT 1400 Introduction to Cloud **2 Credits / 60 Clock-Hours**

Introduction to Cloud provides instruction on core cloud computing concepts, services, and solutions as well as foundational knowledge from a business value perspective of the benefits and considerations for cloud computing implementation. Included is an overview of popular cloud platforms.

Objectives:
• Define the value proposition of cloud computing.
• Identify core cloud concepts, services, solutions, and management tools.
• Demonstrate an understanding of cloud security considerations, features, and best practices.
• Describe cloud identity, governance, privacy, and compliance concepts and features.
• Compare and contrast cloud pricing models and identify cost management solutions.
• Define cloud deployment models, methods, and operations.

TEIT 1500 Introduction to Scripting **1 Credit / 30 Clock-Hours**

Introduction to Scripting provides instruction on basic scripting concepts. Students are introduced to scripting fundamentals to automate tasks that would otherwise be performed manually. Students explore the practical use and management of scripts to perform system administration functions.

Objectives:
• Demonstrate an understanding of the features of scripting languages.
• Implement critical thinking and problem-solving skills through practical exercises.
• Perform automation of systems tasks and functions.

TEIT 1600 Microsoft 365 Fundamentals **3 Credits / 90 Clock-Hours**

The Microsoft 365 Fundamentals course provides instruction on how Microsoft 365 solutions address common organizational technology challenges including productivity, collaboration, and communication. Topics include endpoint and application management, desktop virtualization, automated operating system deployment, Microsoft 365 licensing, deployment and migration assistance, and product support options. This course aligns with the objectives of the Microsoft MS 900 certification exam.

Objectives:
• Identify and describe cloud concepts.
• Describe core Microsoft 365 services and solutions.
• Describe security, compliance, privacy, and trust in Microsoft 365.
• Compare and contrast Microsoft 365 licensing, pricing, and support option.

TEIT 1801 Information Technology Fundamentals Practicum **1 Credit / 30 Clock-Hours**

Information Technology Fundamentals Practicum provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1811 A+ Core I Practicum **1 Credit / 30 Clock-Hours**

A+ Core I Practicum provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1821 A+ Core II Practicum **1 Credit / 30 Clock-Hours**

A+ Core II Practicum provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1831 Computer Networks I and II Practicum **1 Credit / 30 Clock-Hours**

Computer Networks I and II Practicum provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 2915 IT Externship **3 Credits / 135 Clock-Hours**

Students will have the opportunity to develop real-world work experiences using knowledge and skills they have obtained in the program. Students will gain practical application of classroom skills through actual work situations. IT projects will be assigned to the student by cooperative businesses. Students will receive objective feedback on their performance each month. Customized student learning objectives will be developed addressing the individual needs of the organization and career interests of each student by the cooperative business and the student.

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Demonstrate ability to work independently.
• Demonstrate ability to receive constructive criticism.
• Write cooperatively with faculty and agency to create personalized objectives to be accomplished during the internship.

Ogden-Weber

TEIT 1000 Information Technology Fundamentals **2 Credits / 60 Clock-Hours**

The Information Technology Fundamentals course provides an overview of the various career pathways related to working with computers. Throughout the class, students will be introduced to computers, including their history, hardware, operating systems, system support, programming languages, software, databases, networking, data storage, and system security. During this course, the student will perform essential IT tasks commonly performed by end-users and entry-level IT professionals.

Objectives:
• Identify the major components of a computer and understand their function.
• Compare and contrast the differences between various operating systems.
• Demonstrate an understanding of basic principles of software and database development.
• Identify foundational terms used in computing.
• Identify security issues affecting the use of computers and networks.

TEIT 1040 Introduction to Virtualization **1 Credit / 30 Clock-Hours**

Introduction to Virtualization explores what virtualization is and the critical role it plays in IT. Learn how to install, configure, and maintain virtual machines as well as the availability, applications, and virtual appliances, including their role in virtualization.

Objectives:
• Explore virtualization and the benefits gained from a virtual environment.
• Demonstrate how to enable virtualization on a host system.
• Install operating systems on virtual machines.
• Import/Export virtual machines for use in different virtualization platforms.
• Configure basic processing, memory, storage, and networking in a virtual environment.
• Demonstrate how to copy, backup, and restore virtual machines.

TEIT 1100 Introduction to Networking **1 Credit / 30 Clock-Hours**

Introduction to Networking provides foundational-level instruction on the concepts, models, services, settings, protocols, topologies, and devices used in computer networks. Students also explore the Open Systems Interconnection (OSI) and Transmission Control Protocol/Internet Protocol (TCP/IP) models.

Objectives:
• Define common concepts and terms associated with computer networking.
• Identify and differentiate the purpose and function of common networking devices.
• Identify and differentiate common networking ports, protocols and services.
• Identify components of the OSI and TCP/IP models.
• Compare and contrast network topologies and access methods.

TEIT 1110 Introduction to Cybersecurity **1 Credit / 30 Clock-Hours**

This course will provide foundational cybersecurity knowledge in preparation for more advanced cybersecurity courses as well as an introduction to career prospects in cybersecurity.

Objectives:
• Identify various types of security software.
• Demonstrate the use of software to mitigate risk in a lab environment.
• Define security best practices.
• Analyze various software logs.
• Summarize major risk frameworks.
• Identify social engineering techniques.
• Identify accurate and trustworthy security news sources.
• Explore career opportunities in cybersecurity.

TEIT 1400 Introduction to Cloud **2 Credits / 60 Clock-Hours**

Introduction to Cloud provides instruction on core cloud computing concepts, services, and solutions as well as foundational knowledge from a business value perspective of the benefits and considerations for cloud computing implementation. Included is an overview of popular cloud platforms.

Objectives:
• Define the value proposition of cloud computing.
• Identify core cloud concepts, services, solutions, and management tools.
• Demonstrate an understanding of cloud security considerations, features, and best practices.
• Describe cloud identity, governance, privacy, and compliance concepts and features.
• Compare and contrast cloud pricing models and identify cost management solutions.
• Define cloud deployment models, methods, and operations.

TEIT 1500 Introduction to Scripting **1 Credit / 30 Clock-Hours**

Introduction to Scripting provides instruction on basic scripting concepts. Students are introduced to scripting fundamentals to automate tasks that would otherwise be performed manually. Students explore the practical use and management of scripts to perform system administration functions.

Objectives:
• Demonstrate an understanding of the features of scripting languages.
• Implement critical thinking and problem-solving skills through practical exercises.
• Perform automation of systems tasks and functions.

TEIT 1665 Introduction to Servers **2 Credits / 60 Clock-Hours**

This course will focus on server hardware installation and management; datacenter infrastructure and networking; remote management of server hardware; and other server concepts. This course will explore the differences between desktop and server hardware requirements.

Objectives:
• Identify the differences between desktop and server hardware.
• Explore core Datacenter Concepts such as design, infrastructure, and equipment.
• Build, maintain, troubleshoot, and support server hardware.

TEIT 1675 Windows Administration **3 Credits / 90 Clock-Hours**

This course will improve upon the Windows Administration concepts covered in A+ and will expose students to higher levels of Windows Administration tools and functions. This course will explore Windows in-depth administration concepts such as imaging, user settings and preferences, Windows security, Group Policy, registry settings, and general Windows troubleshooting.
Objectives:
- Install and configure Windows operating systems.
- Create and manage user accounts.
- Implement system recovery and file protection.
- Manage group policy settings.
- Perform remote management and troubleshooting.
- Explore system monitoring.

TEIT 1942 Service Desk Administration **2 Credits / 60 Clock-Hours**

This course explores the purpose of service desk software to prepare students for success in a service desk position. Course activities give students the opportunity to improve their customer service, documentation, and troubleshooting skills. Students analyze the purpose of some of the common metrics used for evaluation by service desk managers, as well as their drawbacks.

Course Objectives

- Explore common tasks associated with Service Desk administration.
- Evaluate the metrics used within a Service Desk.
- Practice Communication skills used by Service Desk Agents.
- Expand documentation and knowledge base processes and skills.

TEIT 2170 Computer Networks II **3 Credits / 90 Clock-Hours**

Computer Networks II examines network design and architecture considerations, network documentation, change management, network monitoring methods and solutions, configuration management, network security hardening techniques, and basic datacenter, cloud, and virtual-network concepts. This course aligns with objectives from popular networking certifications.

Objectives:
- Compare and contrast networking appliances, applications, and functions.
- Identify the purpose of organizational processes and procedures.
- Use protocols, tools, and techniques to monitor network activity and troubleshoot performance and availability issues.
- Identify and implement network defense techniques, security features, and security solutions.
- Configure secure enterprise wireless networks.
- Identify basic datacenter, cloud, and virtual-networking concepts.
- Compare and contrast network access and management methods.

TEIT 2200 Security + **4 Credits / 120 Clock-Hours**

Security+ provides instruction on assessing the security posture of enterprise environments and implementing appropriate security solutions. Instruction is given to identify, analyze, and respond to events and incidents. This course aligns with the objectives of the CompTIA Security+ certification exam.

Objectives:
• Explain security functions and purposes as they relate to network devices.
• Identify and implement risk mitigation techniques and strategies.
• Distinguish and evaluate different network and physical security threats.
• Implement network intrusion detection and prevention technologies.
• Identify and execute appropriate cryptography measures.

TEIT 2250 Ethical Hacking **3 Credits / 90 Clock-Hours**

Ethical Hacking teaches fundamental network attack strategies and countermeasures. Students learn to use various penetration testing tools to analyze network vulnerabilities and how to counter them and improve network security. This course aligns with the Certified Ethical Hacker (CEH) objectives.

Objectives:
• Perform: reconnaissance, scanning, and enumeration.
• Demonstrate Access: Obtain login credentials, administrative access and escalate privileges, access by cracking.
• Perform Attacks: Perform passive and active online attacks and infrastructure attacks.
• Demonstrate Defense Techniques: Defend systems and devices, implement defensive systems, scan for vulnerabilities.

TEIT 2270 Cybersecurity Analysis **3 Credits / 90 Clock-Hours**

Cybersecurity Analysis teaches threat and vulnerability management and how to employ tools and methods to secure data and infrastructure and respond to security incidents. The CompTIA CySA+ objectives are covered and serves as a foundation for advanced security credentials.

Objectives:
• Implement appropriate tools and methods to perform a reconnaissance of a system or network.
• Gather data and analyze the results of a reconnaissance.
• Describe and implement techniques and procedures needed to secure an organization.
• Classify threat data or activities for their impact on a security incident.
• Manage incident response, recovery, and reporting

TEIT 2300 Linux + **3 Credits / 90 Clock-Hours**

Linux + provides instructions on how to install, configure, manage, and maintain a Linux server. Topics include: SSH, VNC, Webmin, NIS and LDAP. Students learn to install, configure, and administer a Linux server. This course aligns with the CompTIA Linux + objectives.

Objectives:
• Configure the Linux file systems.
• Configure file sharing services.
• Configure network services.
• Demonstrate competency with Linux Administration Tools.

TEIT 2900 IT Externship **2 Credits / 90 Clock-Hours**

Students will have the opportunity to develop real-world work experiences using knowledge and skills they have obtained in the program. Students will gain practical application of classroom skills through actual work situations. IT projects will be assigned to the student by cooperative businesses. Students will receive objective feedback on their performance each month. Customized student learning objectives will be developed addressing the individual needs of the organization and career interests of each student by the cooperative business and the student.

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Demonstrate ability to work independently.
• Demonstrate ability to receive constructive criticism.
• Write cooperatively with faculty and agency to create personalized objectives to be accomplished during the internship.

TEIT 2910 Special Projects I **1 Credit / 30 Clock-Hours**

Special Projects I provides students with a unique or advanced skill development identified as a need in industry. Students will select their chosen topic from a previous course subject and draft a project proposal. After the project is completed, the student and faculty member will review the success of the project compared to the proposal. (Requires advisor approval).

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Create a draft proposal for a project focusing on networking, cybersecurity, or operating systems.
• Develop a project outline that defines the purpose, scope, and potential challenges they may face. Present the outline to faculty for approval.
• Demonstrate project management skills as they complete their project and work with the instructor to evaluate its success according to their purpose, scope, and outline.

TEIT 2920 Special Projects II **2 Credits / 60 Clock-Hours**

Special Projects II provides students with a unique or advanced skill development identified as a need in industry. Students will select their chosen topic from a previous course subject and draft a project proposal. After the project is completed, the student and faculty member will review the success of the project compared to the proposal. (Requires advisor approval).

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Create a draft proposal for a project focusing on networking, cybersecurity, or operating systems.
• Develop a project outline that defines the purpose, scope, and potential challenges they may face. Present the outline to faculty for approval.
• Demonstrate project management skills as they complete their project and work with the instructor to evaluate its success according to their purpose, scope, and outline.

TEIT 2930 Special Projects III **3 Credits / 90 Clock-Hours**

Special Projects III provides students with a unique or advanced skill development identified as a need in industry. Students will select their chosen topic from a previous course subject and draft a project proposal. After the project is completed, the student and faculty member will review the success of the project compared to the proposal. (Requires advisor approval).

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Create a draft proposal for a project focusing on networking, cybersecurity, or operating systems.
• Develop a project outline that defines the purpose, scope, and potential challenges they may face. Present the outline to faculty for approval.
• Demonstrate project management skills as they complete their project and work with the instructor to evaluate its success according to their purpose, scope, and outline.

Salt Lake

TEIT 1000 Information Technology Fundamentals **2 Credits / 60 Clock-Hours**

The Information Technology Fundamentals course provides an overview of the various career pathways related to working with computers. Throughout the class, students will be introduced to computers, including their history, hardware, operating systems, system support, programming languages, software, databases, networking, data storage, and system security. During this course, the student will perform essential IT tasks commonly performed by end-users and entry-level IT professionals.

Objectives:
• Identify the major components of a computer and understand their function.
• Compare and contrast the differences between various operating systems.
• Demonstrate an understanding of basic principles of software and database development.
• Identify foundational terms used in computing.
• Identify security issues affecting the use of computers and networks.

TEIT 1110 Introduction to Cybersecurity **1 Credit / 30 Clock-Hours**

This course will provide foundational cybersecurity knowledge in preparation for more advanced cybersecurity courses as well as an introduction to career prospects in cybersecurity.

Objectives:
• Identify various types of security software.
• Demonstrate the use of software to mitigate risk in a lab environment.
• Define security best practices.
• Analyze various software logs.
• Summarize major risk frameworks.
• Identify social engineering techniques.
• Identify accurate and trustworthy security news sources.
• Explore career opportunities in cybersecurity.

TEIT 1400 Introduction to Cloud **2 Credits / 60 Clock-Hours**

Introduction to Cloud provides instruction on core cloud computing concepts, services, and solutions as well as foundational knowledge from a business value perspective of the benefits and considerations for cloud computing implementation. Included is an overview of popular cloud platforms.

Objectives:
• Define the value proposition of cloud computing.
• Identify core cloud concepts, services, solutions, and management tools.
• Demonstrate an understanding of cloud security considerations, features, and best practices.
• Describe cloud identity, governance, privacy, and compliance concepts and features.
• Compare and contrast cloud pricing models and identify cost management solutions.
• Define cloud deployment models, methods, and operations.

TEIT 1800 Certification Test Prep I **1 Credit / 30 Clock-Hours**

Certification Test Prep I provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1810 Certification Test Prep II **1 Credit / 30 Clock-Hours**

Certification Test Prep II provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 2170 Computer Networks II **3 Credits / 90 Clock-Hours**

Computer Networks II examines network design and architecture considerations, network documentation, change management, network monitoring methods and solutions, configuration management, network security hardening techniques, and basic datacenter, cloud, and virtual-network concepts. This course aligns with objectives from popular networking certifications.

Objectives:
• Compare and contrast networking appliances, applications, and functions.
• Identify the purpose of organizational processes and procedures.
• Use protocols, tools, and techniques to monitor network activity and troubleshoot performance and availability issues.
• Identify and implement network defense techniques, security features, and security solutions.
• Configure secure enterprise wireless networks.
• Identify basic datacenter, cloud, and virtual-networking concepts.
• Compare and contrast network access and management methods.

TEIT 2200 Security + **4 Credits / 120 Clock-Hours**

Security+ provides instruction on assessing the security posture of enterprise environments and implementing appropriate security solutions. Instruction is given to identify, analyze, and respond to events and incidents. This course aligns with the objectives of the CompTIA Security+ certification exam.

Objectives:
• Explain security functions and purposes as they relate to network devices.
• Identify and implement risk mitigation techniques and strategies.
• Distinguish and evaluate different network and physical security threats.
• Implement network intrusion detection and prevention technologies.
• Identify and execute appropriate cryptography measures.

Snow

TEIT 1010 Orientation **1 Credit / 30 Clock-Hours**

Orientation is designed to introduce students to the program and degree pathway for the CIS department. Students will be introduced to the curriculum, pathways, and industry certifications. Students will be introduced to the learning model utilized in the department to include; online/hybrid instruction, required clock hours in class, and program outcomes. Students will learn how to utilize software platforms used in the program for learning (e.g., Canvas, NetAcad, and Packet Tracer).

Objectives:
• Describe the coursework, pathway, certificates, and degree.
• Describe and operate within the CIS department educational model.
• Describe the industry certifications and specialized departmental badges.
• Demonstrate proficiency with Canvas, NetAcad, and Packet Tracer.

TEIT 1130 Networking Essentials **2 Credits / 60 Clock-Hours**

Networking Essentials will introduce students to the importance of networking in a digital world and introduced network essentials required in many business functions today including business critical data and operations, cybersecurity, and much more. Students will learn to install a home and small business network, develop basic network troubleshooting skills, and recognize network threats and basic mitigation techniques.

Objectives:
• Plan and install simulated home or small business networks and wireless networks.
• Verify settings and troubleshoot network connectivity.
• Identify and mitigate network security threats.

TEIT 1500 Introduction to Scripting **1 Credit / 30 Clock-Hours**

Introduction to Scripting provides instruction on basic scripting concepts. Students are introduced to scripting fundamentals to automate tasks that would otherwise be performed manually. Students explore the practical use and management of scripts to perform system administration functions.

Objectives:
• Demonstrate an understanding of the features of scripting languages.
• Implement critical thinking and problem-solving skills through practical exercises.
• Perform automation of systems tasks and functions.

TEIT 1550 Information Security Fundamentals **3 Credits / 90 Clock-Hours**

This course will teach the knowledge and skills required to make clear and conscious decisions about using real-world penetration and vulnerability testing tools. Students will learn what mitigation techniques are available and be able to recommend the right one given the scenario. Students will be able to conduct end-to-end assessments of IoT systems and Networks and identify any vulnerabilities that exist.

Objectives:
• Conduct end-to-end security assessments of IoT systems to demonstrate vulnerabilities.
• Gain Hands-on experience with IoT prototypes.
• Recommend threat mitigation measures to minimize the risk in IoT solutions and networks.
• Become proficient using real-world penetration and vulnerability testing tools such as Kali Linux.

TEIT 2170 Computer Networks II **3 Credits / 90 Clock-Hours**

Computer Networks II examines network design and architecture considerations, network documentation, change management, network monitoring methods and solutions, configuration management, network security hardening techniques, and basic datacenter, cloud, and virtual-network concepts. This course aligns with objectives from popular networking certifications.

Objectives:
• Compare and contrast networking appliances, applications, and functions.
• Identify the purpose of organizational processes and procedures.
• Use protocols, tools, and techniques to monitor network activity and troubleshoot performance and availability issues.
• Identify and implement network defense techniques, security features, and security solutions.
• Configure secure enterprise wireless networks.
• Identify basic datacenter, cloud, and virtual-networking concepts.
• Compare and contrast network access and management methods.

Southwest

TEIT 1800 Certification Test Prep I **1 Credit / 30 Clock-Hours**

Certification Test Prep I provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1810 Certification Test Prep II **1 Credit / 30 Clock-Hours**

Certification Test Prep II provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 2171 Computer Networks II **2 Credits / 60 Clock-Hours**

Computer Networks II examines network design and architecture considerations, network documentation, change management, network monitoring methods and solutions, configuration management, network security hardening techniques, and basic datacenter, cloud, and virtual-network concepts. This course aligns with objectives from popular networking certifications.

Objectives:
• Compare and contrast networking appliances, applications, and functions.
• Identify the purpose of organizational processes and procedures.
• Use protocols, tools, and techniques to monitor network activity and troubleshoot performance and availability issues.
• Identify and implement network defense techniques, security features, and security solutions.
• Configure secure enterprise wireless networks.
• Identify basic datacenter, cloud, and virtual-networking concepts.
• Compare and contrast network access and management methods.

TEIT 2200 Security + **4 Credits / 120 Clock-Hours**

Security+ provides instruction on assessing the security posture of enterprise environments and implementing appropriate security solutions. Instruction is given to identify, analyze, and respond to events and incidents. This course aligns with the objectives of the CompTIA Security+ certification exam.

Objectives:
• Explain security functions and purposes as they relate to network devices.
• Identify and implement risk mitigation techniques and strategies.
• Distinguish and evaluate different network and physical security threats.
• Implement network intrusion detection and prevention technologies.
• Identify and execute appropriate cryptography measures.

TEIT 2900 IT Externship **2 Credits / 90 Clock-Hours**

Students will have the opportunity to develop real-world work experiences using knowledge and skills they have obtained in the program. Students will gain practical application of classroom skills through actual work situations. IT projects will be assigned to the student by cooperative businesses. Students will receive objective feedback on their performance each month. Customized student learning objectives will be developed addressing the individual needs of the organization and career interests of each student by the cooperative business and the student.

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Demonstrate ability to work independently.
• Demonstrate ability to receive constructive criticism.
• Write cooperatively with faculty and agency to create personalized objectives to be accomplished during the internship.

TEIT 2920 Special Projects II **2 Credits / 60 Clock-Hours**

Special Projects II provides students with a unique or advanced skill development identified as a need in industry. Students will select their chosen topic from a previous course subject and draft a project proposal. After the project is completed, the student and faculty member will review the success of the project compared to the proposal. (Requires advisor approval).

Objectives:
• Apply decision-making, critical-thinking, troubleshooting, and problem-solving skills.
• Create a draft proposal for a project focusing on networking, cybersecurity, or operating systems.
• Develop a project outline that defines the purpose, scope, and potential challenges they may face. Present the outline to faculty for approval.
• Demonstrate project management skills as they complete their project and work with the instructor to evaluate its success according to their purpose, scope, and outline.

Tooele

TEIT 1290 Linux Computing with Raspberry Pi **2 Credits / 60 Clock-Hours**

This course will provide students the opportunity to use the Linux operating system to create ten useful projects using a Raspberry Pi computer and various peripherals.

Objectives:
• Explain basic functionality and limitations of Raspberry Pi computers.
• Demonstrate programming using Raspbian and other Linux-based operating systems.
• Explore thousands of project ideas that can be created using Linux and a Raspberry Pi.
• Troubleshoot software and hardware errors.
• Create ten useful projects using a Raspberry Pi computer.

TEIT 1410 Cloud+ **0 Credits / 3 Clock-Hours**

Cloud+ provides an overview of the core concepts, practices, and functions of modern cloud environments. The course introduces foundational areas of cloud architecture, deployment, operations, security, and troubleshooting. Content is structured to align with the CompTIA Cloud+ (CV0-004) certification framework, supporting learners in developing the knowledge needed to work with cloud infrastructure and cloud-based systems.

Objectives:
● Discuss fundamental principles of cloud computing and the general structure of cloud environments.
● Examine approaches to cloud deployment and the broader considerations involved in supporting cloud workloads.
● Explore operational practices used to manage, monitor, and maintain cloud systems.
● Review essential cloud security concepts and the role of compliance in protecting cloud environments.
● Identify common categories of cloud-related issues and general strategies used to troubleshoot them in alignment with Cloud+ certification expectations.

TEIT 2170 Computer Networks II **3 Credits / 90 Clock-Hours**

Computer Networks II examines network design and architecture considerations, network documentation, change management, network monitoring methods and solutions, configuration management, network security hardening techniques, and basic datacenter, cloud, and virtual-network concepts. This course aligns with objectives from popular networking certifications.

Objectives:
• Compare and contrast networking appliances, applications, and functions.
• Identify the purpose of organizational processes and procedures.
• Use protocols, tools, and techniques to monitor network activity and troubleshoot performance and availability issues.
• Identify and implement network defense techniques, security features, and security solutions.
• Configure secure enterprise wireless networks.
• Identify basic datacenter, cloud, and virtual-networking concepts.
• Compare and contrast network access and management methods.

TEIT 2200 Security + **4 Credits / 120 Clock-Hours**

Security+ provides instruction on assessing the security posture of enterprise environments and implementing appropriate security solutions. Instruction is given to identify, analyze, and respond to events and incidents. This course aligns with the objectives of the CompTIA Security+ certification exam.

Objectives:
• Explain security functions and purposes as they relate to network devices.
• Identify and implement risk mitigation techniques and strategies.
• Distinguish and evaluate different network and physical security threats.
• Implement network intrusion detection and prevention technologies.
• Identify and execute appropriate cryptography measures.

TEIT 2250 Ethical Hacking **3 Credits / 90 Clock-Hours**

Ethical Hacking teaches fundamental network attack strategies and countermeasures. Students learn to use various penetration testing tools to analyze network vulnerabilities and how to counter them and improve network security. This course aligns with the Certified Ethical Hacker (CEH) objectives.

Objectives:
• Perform: reconnaissance, scanning, and enumeration.
• Demonstrate Access: Obtain login credentials, administrative access and escalate privileges, access by cracking.
• Perform Attacks: Perform passive and active online attacks and infrastructure attacks.
• Demonstrate Defense Techniques: Defend systems and devices, implement defensive systems, scan for vulnerabilities.

TEIT 2270 Cybersecurity Analysis **3 Credits / 90 Clock-Hours**

Cybersecurity Analysis teaches threat and vulnerability management and how to employ tools and methods to secure data and infrastructure and respond to security incidents. The CompTIA CySA+ objectives are covered and serves as a foundation for advanced security credentials.

Objectives:
• Implement appropriate tools and methods to perform a reconnaissance of a system or network.
• Gather data and analyze the results of a reconnaissance.
• Describe and implement techniques and procedures needed to secure an organization.
• Classify threat data or activities for their impact on a security incident.
• Manage incident response, recovery, and reporting

TEIT 2300 Linux + **3 Credits / 90 Clock-Hours**

Linux + provides instructions on how to install, configure, manage, and maintain a Linux server. Topics include: SSH, VNC, Webmin, NIS and LDAP. Students learn to install, configure, and administer a Linux server. This course aligns with the CompTIA Linux + objectives.

Objectives:
• Configure the Linux file systems.
• Configure file sharing services.
• Configure network services.
• Demonstrate competency with Linux Administration Tools.

Uintah Basin

TEIT 1180 Network Service Technician **2 Credits / 60 Clock-Hours**

using industry-leading hardware, including Cisco Meraki, UniFi routers, switches, wireless access points, and Calix products. Students will gain hands-on experience configuring and optimizing network infrastructure for small to medium-sized businesses. In addition to technical skills, the course emphasizes professionalism in IT service delivery, focusing on effective ticket management, asset tracking, and maintaining high customer service standards. Graduates of this course will be prepared to implement robust network solutions while upholding industry best practices.

Objectives:
• Install, configure, and optimize routers, switches, and wireless access points from Cisco Meraki, UniFi, and Calix for small to medium-sized business environments.
• Troubleshoot and maintain wireless network performance, ensuring reliability and security across various hardware platforms.
• Master ticket management, asset tracking, and customer service techniques to deliver effective and professional IT solutions.
• Integrate technical and operational standards to design and manage scalable, secure, and efficient networking systems

TEIT 1800 Certification Test Prep I **1 Credit / 30 Clock-Hours**

Certification Test Prep I provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1810 Certification Test Prep II **1 Credit / 30 Clock-Hours**

Certification Test Prep II provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 1820 Certification Test Prep III **1 Credit / 30 Clock-Hours**

Certification Test Prep III provides instruction in preparation for industry exams. Students will access additional testing materials and resources for their exam preparation. Students will review the exam outline, objectives, grading scale, requirements, and recommendations for the specified industry exam.

Objectives:
• Identify areas for improvement of certification learning objectives.
• Demonstrate competency by passing practice tests.
• Demonstrate proficiency in test-taking strategies.
• Schedule and take the certification exam.

TEIT 2170 Computer Networks II **3 Credits / 90 Clock-Hours**

Computer Networks II examines network design and architecture considerations, network documentation, change management, network monitoring methods and solutions, configuration management, network security hardening techniques, and basic datacenter, cloud, and virtual-network concepts. This course aligns with objectives from popular networking certifications.

Objectives:
• Compare and contrast networking appliances, applications, and functions.
• Identify the purpose of organizational processes and procedures.
• Use protocols, tools, and techniques to monitor network activity and troubleshoot performance and availability issues.
• Identify and implement network defense techniques, security features, and security solutions.
• Configure secure enterprise wireless networks.
• Identify basic datacenter, cloud, and virtual-networking concepts.
• Compare and contrast network access and management methods.

USU - Eastern

TEIT 1041 Introduction to Programming **3 Credits / 90 Clock-Hours**

This course introduces computer programming/software engineering and applications. Students learn the fundamentals of computer programming, simple controls and data structures, and operating system commands. Students learn to design, code, and test their own programs, and apply mathematical skills.

Objectives:
• Modify existing Python programs.
• Write original Python programs.
• Demonstrate the use of:
o Different data types and variables.
o Decision structures such as If and If-elif-else.
o Loops structures such as While, and For functions.
o Lists, Tuples, Dictionaries and Sets.
o String manipulations.
o Files (read and write).
o Classes and Object-Oriented Programming.

TEBP 1200 Professionalism **3 Credits / 90 Clock-Hours**

Professionalism explores behaviors, attitudes, and human skills essential for workplace success. Students will study how to build strong customer relations and provide outstanding customer service in a diverse workplace. Students will use professional skills to prepare for potential career opportunities.

Objectives:
• Explain the importance of human skills for success in the workplace.
• Explore the foundations of a service culture and develop relationship management skills.
• Demonstrate preparedness for potential career opportunities.
• Practice acceptable workplace conduct, including self-management, willingness to learn, and workplace relationships.

TEIT 1310 Website Design **3 Credits / 90 Clock-Hours**

This course focuses on design and construction of Web pages using HTML, Cascading Style Sheets, and JavaScript. Students will have hands-on experience creating and publishing web pages. This course also focuses on basics of hosting, publishing, promoting, and maintaining websites.

Objectives:
• Understand web hosting and critique website designs.
• Demonstrate use of HTML5 and Cascading Style Sheets (CSS) in developing web pages.
• Develop web pages using images, multimedia, tables, and forms.
• Apply basic JavaScripting to web pages.
• Publish, Promote, and Maintain a website.
• Evaluate and use Website Builders or Content Management Systems (CMS).

TEIT 1560 Practical Cybersecurity **4 Credits / 120 Clock-Hours**

Practical Cybersecurity delivers hands-on training in offensive and defensive security, including OSINT, network enumeration, web and cloud security, malware analysis, digital forensics, SIEM monitoring with Splunk, and incident response, bridging cybersecurity theory with real-world attack-and-defense practices.

Course Objectives:
• Conduct passive external open-source intelligence (OSINT) gathering and active internal network discovery using Sublist3r, Shodan, Maltego, and Nmap.
• Audit cloud infrastructure access policies, storage permissions, and source code pipelines using Prowler, Semgrep, and Snyk DevSecOps tooling.
• Analyze, exploit, and remediate web application security flaws; including SQL injection, Cross-Site Scripting (XSS), and parameter tampering; using browser developer tools and Burp Suite.
• Deploy, configure, and evaluate host firewalls, open-source antivirus engines, and Network Intrusion Detection Systems (NIDS) like Snort 3 to analyze malicious network packet traffic.
• Reverse-engineer weaponized document attachments and binary executables using oletools, custom YARA detection rules, and multi-engine hash enrichment via VirusTotal.
• Collect and correlate system telemetry from Linux authorization logs and Windows Sysmon events using Splunk Search Processing Language (SPL) to build real-time monitoring dashboards.
• Execute volatile memory acquisition and RAM forensics using FTK Imager and Volatility 3 to identify process tree anomalies, unbacked code execution, and in-memory implants.
• Analyze Command and Control (C2) framework architectures, cryptanalysis techniques, and privilege escalation methodologies within enterprise directory environments.

TEIT 2170 Computer Networks II **3 Credits / 90 Clock-Hours**

Computer Networks II examines network design and architecture considerations, network documentation, change management, network monitoring methods and solutions, configuration management, network security hardening techniques, and basic datacenter, cloud, and virtual-network concepts. This course aligns with objectives from popular networking certifications.

Objectives:
• Compare and contrast networking appliances, applications, and functions.
• Identify the purpose of organizational processes and procedures.
• Use protocols, tools, and techniques to monitor network activity and troubleshoot performance and availability issues.
• Identify and implement network defense techniques, security features, and security solutions.
• Configure secure enterprise wireless networks.
• Identify basic datacenter, cloud, and virtual-networking concepts.
• Compare and contrast network access and management methods.

TEIT 2500 Web Business **3 Credits / 90 Clock-Hours**

This course is an introduction to Web-based business. Students will learn business concepts relating to on-line and world-wide e-commerce. Also marketing concepts, design strategies, and technical issues as they relate to Web-based businesses will be discussed.

Objectives:
• Review technology infrastructure of the Internet and the World Wide Web.
• Understand the implications of selling on the web — regional and worldwide.
• Develop marketing concepts on the web in conjunction with social media, mobile, and online auctions.
• Explain how to improve efficiency and reduce costs.
• Discuss the environment of electronic commerce involving ethical, legal, and tax Issues.
• Explain web server hardware and software, electronic commerce software and associated security needs.
• Plan for electronic commerce including the implementation of payment systems that are commonly used.

Dixie

TEIT 1105 Extended Networks **1 Credit / 30 Clock-Hours**

This course provides additional instruction on the installation, configuration and management of computer networks.

Objectives:
● Install and apply simulation Software such as Cisco Packet Tracer.
● Design, configure and connect network hardware for a simulated Local Area Network.
● Execute and test network function and traffic.

TEIT 1215 Extended A+ **2 Credits / 60 Clock-Hours**

This course provides added instruction on installing, configuring, securing, and troubleshooting typical computer and mobile device operating systems, settings, and applications. Common operating systems such as Windows, Android, Linux, and Mac OS X are discussed in this course. Students receive education through instruction, virtual labs, simulations, and/or hands-on activities. As well as certification practice exams. This section of the course aligns with the objectives of the CompTIA A+ Core 1 & 2 certification exams.

Objectives:
• Install and configure computer hardware components and peripheral devices.
• Identify and configure basic networking components and protocols.
• Install and configure laptops and other mobile devices.
• Diagnose and troubleshoot device and network issues.
• Compare and contrast cloud computing concepts Configure client-side virtualization.
• Install and configure Windows, Mac, and Linux.
• Identify best practices for safety, environmental impacts, communication, and professionalism.
• Troubleshoot common operating system, malware, and security issues.
• Identify basic vulnerabilities and protect against threats.
• Install, configure, and maintain software in computers and mobile devices.

TEIT 1405 Introduction to Cloud Computing **4 Credits / 120 Clock-Hours**

This course provides instruction on basic cloud concepts such as migration, storage, virtual machines, DevOps and troubleshooting through lessons, demonstrations, exams, and hands-on virtual labs. This Course is designed to prepare students to complete all the requirements for the AWS Cloud Practitioner Certification Exam.

Objectives:
● Identify cloud types.
● Recognize cloud services and functionalities.
● Configure and work with Cloud Storage.
● Configure virtual network infrastructure.
● Install and configure the basics of Cloud security.

TEIT 2170 Computer Networks II **3 Credits / 90 Clock-Hours**

Computer Networks II examines network design and architecture considerations, network documentation, change management, network monitoring methods and solutions, configuration management, network security hardening techniques, and basic datacenter, cloud, and virtual-network concepts. This course aligns with objectives from popular networking certifications.

Objectives:
• Compare and contrast networking appliances, applications, and functions.
• Identify the purpose of organizational processes and procedures.
• Use protocols, tools, and techniques to monitor network activity and troubleshoot performance and availability issues.
• Identify and implement network defense techniques, security features, and security solutions.
• Configure secure enterprise wireless networks.
• Identify basic datacenter, cloud, and virtual-networking concepts.
• Compare and contrast network access and management methods.

TEIT 2205 Security + **6 Credits / 180 Clock-Hours**

Security+ provides instruction on assessing the security posture of enterprise environments and implementing appropriate security solutions. Instruction is given to identify, analyze, and respond to events and incidents. This course aligns with the objectives of the CompTIA Security+ certification exam.

Objectives:
• Identify and implement access control and Identity management protocols.
• Enforce security policies, procedures, and awareness programs.
• Conduct physical security assessments and implement measures.
• Configure perimeter defenses strategies.
• Administer and maintain network defense controls and protocols.
• Execute host defense strategies.
• Apply application security measures and defenses.
• Configure and implement data security protocols and defenses.
• Conduct audits and assessments and implement findings.
• Apply cryptography and PKI protocols.

TEIT 2951 Final Project **3 Credits / 90 Clock-Hours**

In this course, students will demonstrate knowledge and competency in all areas of the Information Technology program. Students will actively design, connect and configure all the devices and components needed to simulate multiple Local Area Networks (LAN) and connect them together to simulate a functioning Wide Area Network with complete interconnectivity.

Objectives:
● Demonstrate the ability to troubleshoot, repair and maintain computing equipment.
● Install and configure operating systems for both servers and workstations.
● Configure and set group policy for Active Directory.
● Setup and configure networking equipment.
● Demonstrate the ability to set up and maintain security of a network, and associated equipment.
● Incorporate cloud technologies into an existing network.