INFORMATION TECHNOLOGY (IT)

IT C104 **4 Units (72 lecture hours; 18 lab hours)**
IT Fundamentals
Grading Mode: Standard Letter, Pass/No Pass
Transfer Credit: CSU.

Formerly CST C104. This course will cover the topics of the IT Fundamentals certification exam, which validates the knowledge and skills required to identify and explain the basics of computing, IT infrastructure, software development, and database use. In addition, candidates will demonstrate their knowledge to install software, establish basic network connectivity, and identify/prevent basic security risks. Technologies and trends of the IT industry will be covered to reinforce current best practices. Helps students gain knowledge in preparation for the CompTIA IT Fundamentals certification exam. Graded or Pass/No pass option.

IT C128 **3 Units (54 lecture hours; 18 lab hours)**
Computer Networking Principles (Network+)
Advisory: IT C104.

Grading Mode: Standard Letter, Pass/No Pass
Transfer Credit: CSU.

Formerly CST C128. This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP (Internet Protocol) addressing and the fundamentals of Ethernet concepts, media, and operations are surveyed to provide a foundation for further study of computer networks. This course uses the OSI (Open Systems Interconnection) and TCP (Transmission Control Protocol) layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. Hands-on exercises help students develop skills to prepare for careers such as Network Engineer or Network Administrator. Helps students gain knowledge in preparation for the CompTIA Network+ certification exam. Graded or Pass/No Pass Option.

IT C158 **3 Units (54 lecture hours; 18 lab hours)**
Contemporary Operating Systems (Server+)
Advisory: IT C128.

Grading Mode: Standard Letter, Pass/No Pass
Transfer Credit: CSU.

Formerly CST C158. This course focuses on server hardware management and installation concepts widely used in the Information Technology sector. Trends and technologies of the server environment such as virtualization, data centers, software-defined networking, security risks, and network-attached storage improvements are covered. Students will learn skills for server administration and troubleshooting techniques through hands-on assignments. Helps students gain knowledge in preparation for the CompTIA Server+ certification exam. Graded or Pass/No Pass Option.

IT C191 **3 Units (54 lecture hours; 18 lab hours)**
Linux Operating System Principles (Linux+)
Advisory: IT C104 or IT C128.

Grading Mode: Standard Letter, Pass/No Pass
Transfer Credit: CSU.

Formerly CST C191A. This course covers the history of the Linux operating system, various release versions, and how to install Linux. Students will compare and contrast desktop managers, traverse the Linux file system, explore the wonders of Vi scripts, and the command-line interface. Hands-on assignments will help students develop introductory technical skills relevant to entry-level cybersecurity and computer networking professional roles. Helps students gain knowledge in preparation for the CompTIA Linux+ certification exam. Graded or Pass/No Pass option.

IT C198 **3 Units (54 lecture hours; 14 lab hours)**
Cloud Foundations
Advisory: IT C128 or IT C201.

Grading Mode: Standard Letter, Pass/No Pass
Transfer Credit: CSU.

Formerly CST C198. This course covers the topics of cloud computing which will validate the knowledge and skills used in the most common cloud service platforms. This will include activities in Amazon Web Services (AWS), Google Cloud, and Microsoft Azure. Common topics such as elasticity, storage, database, security, pricing, access, identity management, and support will be covered. Graded or Pass/No Pass option.

IT C201 **3 Units (54 lecture hours; 14 lab hours)**
Introduction to Networking (Cisco CCNA 1)
Advisory: IT C128.

Grading Mode: Standard Letter, Pass/No Pass
Transfer Credit: CSU.

Formerly CST C201D. This is the first course in the Cisco Certified Network Associate (CCNA) series. The course introduces the architectures, models, protocols, and networking elements that connect users, devices, applications and data through the Internet and across modern computer networks. It includes IP addressing and Ethernet fundamentals. Hands-on preparation for the CCNA exam is emphasized. Graded or Pass/No Pass option.

IT C202 3 Units (54 lecture hours; 14 lab hours)
Essentials of Routing, Switching, and Wireless (Cisco CCNA 2)
Advisory: IT C201.

Grading Mode: Standard Letter, Pass/No Pass
Transfer Credit: CSU.

Formerly CST C202D. This is the second course in the Cisco Certified Network Associate (CCNA) series. The courses focuses on switching technologies and router operations that support small-to-medium business networks and includes wireless local area networks (WLAN) and security concepts. In addition to learning key switching and routing concepts, students will be able to perform basic network configuration and troubleshooting, identify and mitigate LAN security threats, and configure and secure a basic WLAN (Wireless Local Area Network). Hands-on preparation for the CCNA exam is emphasized. Graded or Pass/No Pass option.

IT C203 3 Units (54 lecture hours; 14 lab hours)
Enterprise Networking, Security, and Automation (Cisco CCNA 3)
Advisory: IT C202.

Grading Mode: Standard Letter, Pass/No Pass
Transfer Credit: CSU.

Formerly CST C203D. This is the third course in the Cisco Certified Network Associate (CCNA) curriculum series. It describes the architecture, components, operations, and security to scale for large, complex networks, including wide area network (WAN) technologies. The course emphasizes network security concepts and introduces network virtualization and automation. Students learn how to configure, troubleshoot, and secure enterprise network devices and understand how application programming interfaces (API) and configuration management tools enable network automation. Hands-on preparation for the CCNA exam is emphasized. Graded or Pass/No Pass option.

IT C248 3 Units (54 lecture hours; 14 lab hours)
Wireless Networking
Advisory: IT C128.

Grading Mode: Standard Letter, Pass/No Pass
Transfer Credit: CSU.

Formerly CST C248B. This is an entry-level course in wireless data communications. It covers the fundamentals of wireless technology and provides an overview of protocols, transmission methods, 802.11 network architecture, and IEEE standards. It also examines the broad range of enterprise Wi-Fi technologies available. Topics covered include the basics of radio frequency and wireless data transmission, and the protocols and mechanisms that every wireless network technician needs to understand. Hands-on exercises help students develop skills to prepare for careers such as Network Technician or Wireless Network Administrator. Graded or Pass/No Pass option.

IT C281 1 Unit (8 lecture hours; 48-54 other hours)
Work Experience Education
Grading Mode: Standard Letter, Pass/No Pass
Transfer Credit: CSU.

Formerly CST C281 Work Based Learning. To enhance each Work Experience Education participant's opportunity for success in the field of Information Technology by bridging the gap between educational theory and on-the-job practices through individualized performance objectives related to the student's career or occupational goal in Information Technology. Note: 48 to 54 hours of paid or non-paid work in a field related to Information Technology for each one-semester credit aligns with Title 5 Sections 55002.5, and 55040 revised August 26, 2023. Graded or Pass/No Pass option.

IT C282 2 Units (8 lecture hours; 96-108 other hours)
Work Experience Education
Grading Mode: Standard Letter, Pass/No Pass
Transfer Credit: CSU.

Formerly CST C282 Work Based Learning. To enhance each Work Experience Education participant's opportunity for success in the field of Information Technology by bridging the gap between educational theory and on-the-job practices through individualized performance objectives related to the student's career or occupational goal in Information Technology. Note: 48 to 54 hours of paid or non-paid work in a field related to Information Technology for each one-semester credit aligns with Title 5 Sections 55002.5, and 55040 revised August 26, 2023. Graded or Pass/No Pass option.

IT C283 3 Units (8 lecture hours; 144-162 other hours)
Work Experience Education
Grading Mode: Standard Letter, Pass/No Pass
Transfer Credit: CSU.

Formerly CST C283 Work Based Learning. To enhance each Work Experience Education participant's opportunity for success in the field of Information Technology by bridging the gap between educational theory and on-the-job practices through individualized performance objectives related to the student's career or occupational goal in Information Technology. Note: 48 to 54 hours of paid or non-paid work in a field related to Information Technology for each one-semester credit aligns with Title 5 Sections 55002.5, and 55040 revised August 26, 2023. Graded or Pass/No pass option.

IT C284 4 Units (8 lecture hours; 192-216 other hours)
Work Experience Education
Grading Mode: Standard Letter, Pass/No Pass
Transfer Credit: CSU.

Formerly CST C284 Work Based Learning. To enhance each Work Experience Education participant's opportunity for success in the field of Information Technology by bridging the gap between educational theory and on-the-job practices through individualized performance objectives related to the student's career or occupational goal in Information Technology. Note: 48 to 54 hours of paid or non-paid work in a field related to Information Technology for each one-semester credit aligns with Title 5 Sections 55002.5, and 55040 revised August 26, 2023. Graded or Pass/No pass option.

IT C295 **3 Units (54 lecture hours; 14 lab hours)**
Cloud Architecture and Networking
Advisory: IT C198.

Grading Mode: Standard Letter, Pass/No Pass
Transfer Credit: CSU.

Formerly CST C295. This course covers the fundamentals of building IT infrastructure in Cloud Provider Environments. This includes Amazon Web Services (AWS), Microsoft Azure, and Google Cloud. The course is designed to teach solutions architects how to optimize their use of the Cloud by understanding services and how they fit into cloud-based solutions. Although architectural solutions can vary, this course emphasizes best practices for the main Cloud Providers. It also recommends various design patterns to help you think through the process of architecting optimal IT solutions in the Cloud. Throughout the course, students will explore case studies that showcase how some cloud customers have designed their infrastructures and the strategies and services that they have implemented. Finally, this course provides opportunities for students to build a variety of infrastructures through a guided, hands-on approach. Graded or Pass/No Pass option.