

COMPUTER & HIGH TECHNOLOGY (CHT)

CHT A100 **3 Units (54 lecture hours)**

Computer Use in Technology
Grading Mode: Standard Letter
Transfer Credit: CSU.

An introduction to the current state of computer hardware and software and software technology for the student enrolled in technical courses. An overview for the person who wants to understand computers and automation in industry. Not a programming course.

CHT A110 **4 Units (63 lecture hours; 27 lab hours)**

PC Concepts: A+ Certification Preparation
Grading Mode: Standard Letter
Transfer Credit: CSU.

Introduces the hardware and operating system concepts of a personal computer and the broad range of hardware and software technologies. Provides preparation for students seeking A+ Certification sponsored by the Computing Technology Industry Association and certifies the competency of entry-level service technicians in the computer industry.

CHT A162 **3 Units (45 lecture hours; 27 lab hours)**

Fundamentals of Information Security
Advisory: CIS A110 or IT A110 or CIS A191 or IT A191.

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

This course provides the fundamental knowledge necessary for a student to become proficient in the field of Information Security. This course will prepare the student for a wide variety of security responsibilities. The curriculum covers a wide range of security concepts, including General Security Concepts, Communication Security, Infrastructure Security, Basics of Cryptography, and Operational and Organizational Security. This course covers CompTIA™s Security+ content and provides preparation for students seeking the CompTIA Security+ Certification. Graded or Pass/No Pass option.

CHT A176 **3 Units (45 lecture hours; 27 lab hours)**

Database Design and Data Warehousing for Big Data
Grading Mode: Standard Letter, Pass/No Pass
Transfer Credit: CSU.

Covers the terminology, technology, and software used to design and implement a Microsoft SQL Server database. Students will learn to design, create and maintain a database to handle LOB (Line of Business) and DW (Data Warehousing) applications. Graded or Pass/No Pass option.

CHT A177 **3 Units (45 lecture hours; 27 lab hours)**

Business Intelligence and Data Mining for Big Data
Advisory: CHT A176, IT A176 or CIS A176 or equivalent.

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

Covers the terminology, technology and software used to build a data warehouse model and prepare that model for data mining. Students will learn how to design and process a data warehouse database using SSIS (Sql Server Integration Services), and format a cube in SSAS (SQL Server Analysis Services) in preparation for data mining operations. Graded or Pass/No Pass option. This course may also be offered online.

CHT A191 **4 Units (72 lecture hours)**

Network and Communications Technologies
Advisory: CHT A110, IT A110 or CIS A110.

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

Provides an introduction to an overview of the field of networking, data communications and connectivity, with an emphasis on terminology, hardware, and software associated with the various components of a network. Provide preparation for students seeking the Network + Certification. This course may also be offered online. Graded or Pass/No Pass option.

CHT A263 **3 Units (45 lecture hours; 27 lab hours)**

Introduction to the Internet of Things
Advisory: CHT A110, CIS A110 or IT A110 and CHT A191, CIS A191 or IT A191.

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

The Internet of Things (IoT) is the network of physical objects or "things" embedded with electronics, software, sensors and connectivity to enable it to achieve greater value and service by exchanging data with the manufacturer, operator and/or other connected devices. Each thing is uniquely identifiable through its embedded computing system but is able to interoperate within the existing Internet infrastructure. This course will prepare students to install, configure and maintain these devices. Graded or Pass/No Pass option.

CHT A280 **3 Units (45 lecture hours; 27 lab hours)**

Information and Storage Management
Advisory: CHT A110, IT A110, CIS A110, CHT 191, IT A191 or CIS A191.

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

The course provides a comprehensive introduction to information storage technology which enables students to make more informed decisions in an increasingly complex IT environment. It builds a strong understanding of underlying storage technologies and prepares Student to learn advanced concepts, technologies and products. Graded or Pass/No Pass option. This course may also be offered online.

CHT A281 **3 Units (45 lecture hours; 27 lab hours)**
Cloud Infrastructure & Services
Grading Mode: Standard Letter, Pass/No Pass
Transfer Credit: CSU.

This course educates students about cloud deployment and service models, cloud infrastructure, and the key considerations in migrating to cloud computing. The course covers technologies required to build classic, virtualized, and cloud data center environments. These technologies include compute, storage, networking, desktop and application virtualization. Additional areas of focus are backup/recovery, business continuity, security, and management. Students will learn about the key considerations and steps involved in transitioning from the current state of a data center to a cloud computing environment. Graded or Pass/No Pass option.

CHT A282 **3 Units (45 lecture hours; 27 lab hours)**
Ethical Hacking and Network Defense
Advisory: CHT A191, IT A191 or CIS A191; and CHT A261, IT A261 or CIS A261.

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

Students will learn how hackers attack computers and networks, and how to protect Windows and Linux systems. Legal restrictions and ethical guidelines will be taught and enforced. Students will perform many hands-on labs; attacking and defending, using port scans, footprinting, buffer overflow exploits, SQL injection, privilege escalation, Trojans, and backdoors. This course may also be offered online. Graded or Pass/No Pass option.

CHT A285 **3 Units (45 lecture hours; 27 lab hours)**
VMware View: Installation, Configuration & Management
Advisory: CHS A110, IT A110, CIS A110, CHS A191, IT A191 or CIS A191.

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

Students will learn the concepts and capabilities of virtual desktops with a focus on the installation, configuration, and management of virtual desktops and thin clients using tools such as VMWare. This course will provide applications-oriented administrators with the knowledge and skills to virtualize applications with VMware ThinApp, modify parameters to handle special circumstances, and choose the best deployment and updating processes for organizational environments. Graded or Pass/No Pass option.

CHT A286 **3 Units (45 lecture hours; 27 lab hours)**
VMware vSphere: Installation, Configuration & Management
Advisory: CHT A110, IT A110, CIS A110, CHT A191, IT A191, or CIS A191.

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

Students will learn the concepts and capabilities of virtual architecture with a focus on the installation, configuration, and management of virtual infrastructure using tools such as VMWare®. This course covers fundamentals of virtual network design and implementation, fundamentals of storage area networks, virtual switching, virtual system management, and engineering for high availability. Graded or Pass/No Pass option.

CHT A290 **3 Units (45 lecture hours; 27 lab hours)**
Small Office / Home Office: Case Study I
Advisory: CHT A191, CIS A191, IT A191, CHT A161, CIS A261, IT A261, CHT A263, CIS A263 or IT A263.

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

Challenges students to apply network concepts learned in previous courses to a case-study based problem in Small Office / Home Office environments. Includes various responsibilities and tasks required for a service engineer to design and execute a successful implementation. Prepares individuals for careers as a Network Engineer in the IT industry. Graded or Pass/No Pass option.