CHT A100: COMPUTER USE IN TECHNOLOGY

Item	Value
Curriculum Committee Approval Date	02/09/2022
Top Code	070100 - Information Technology, General
Units	3 Total Units
Hours	54 Total Hours (Lecture Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	Yes
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S)
Associate Arts Local General Education (GE)	• OC Life Skills - Theory - AA (OE1)

Course Description

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. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Identify the hardware parts and ports of a computer.
2. Demonstrate basic utilization of a current computer operating system.
3. Combine word processing and spreadsheets into a presentation program
4. Complete a drawing from written instructions using an entry level CAD program.
5. Use an entry level photo editing program to manipulate photographs per written instructions.
6. Produce a webpage using photos and CAD drawings.

Course Objectives

- 1. Describe how microprocessor and computer hardware, software, and peripherals are used in industrial applications.
- 2. Describe how industrial computer networks are used to interface design, manufacturing, and integration application.
- 3. Describe and define how computer and microprocessor technology will be utilized in machine instrumentation.
- 4. Describe the ability to use trade or area specific software to prepare and complete course exercises using application software.
- 5. Describe how the students chosen area of study (Aviation, architecture, machine technology, construction, drafting, etc.) is impacted using computer technology.
- 6. Describe how computer networks are used in a large manufacturing environment to utilize, distribute, protect and archive data.
- 7. Demonstrate the computer literacy skill set required of entry level technicians.
- 8. Describe how technology development revolves around computer operated and generated technologies.

Lecture Content

Units of Instruction Introduction, glossary of terms Microprocessor and computer hardware, industrial instrumentation Telecommunications, networks, and relational databases for industrial users Operating systems and administrator hierarchies for file sharing, generation of back-up protocols Software and documentation of application software used in industry Software demonstration and student exercises: Industrial documentation and presentation software – Word Processing, Spreadsheets, and Presentation software. Introduction to Computer Aided Drafting software Introduction to Photo editing software Home page generation and industrial documentation

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- DE Online Lecture (02X)

Instructional Techniques

Lecture/demonstration, individualized instruction.

Reading Assignments

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Writing Assignments

Unit exercises to demonstrate competencies based on unique software applications for technical areas; write-up of various exercises to be handed in.

Out-of-class Assignments

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Demonstration of Critical Thinking

Unit exercises, skill demonstrations, problem solving exercises, test.

Required Writing, Problem Solving, Skills Demonstration

Unit exercises to demonstrate competencies based on unique software applications for technical areas; write-up of various exercises to be handed in.

Textbooks Resources

1. Required Gookin, Dan. PCs for Dummies, ed. New York: Wiley, John Sons, Inc, 2003 Rationale: -