DRFT 2380

Division: Career and Technical Education
Department: Drafting Technology
Course: DRFT 2380
Title: AutoLISP
Catalog Description:

This course covers the customizing of the AutoCAD menu for personal use. It includes instructions on how to create productive routines to combine commands and reduce the time required to create drawings. The course is designed to provide a basic understanding of how to design, write, and debug AutoCAD programs.

General Education Requirements: N/A
Semesters Offered: TBA
Credit/Time Requirement: Credit: 2; Lecture: 1; Lab: 2
Clock/Hour Requirements: 45
Offered for Non-Credit: No
Prerequisites: DRFT 1300

Corequisites: None

Justification:

This course is approved by the program advisory committee and corresponds to UVSC course DT 1080.

Student Learning Outcomes:

Upon successful completion of this course, students will be able to:

- understand and apply the basic elements that comprise an AutoLISP program
- create and use AutoLISP program files
- create and use storage data lists
- understand and apply the math functions used in AutoLISP programs
- apply the various techniques, expressions, looping, and list manipulation to create programs
- understand the basic principles of selection sets
- know how to create, use, and debug AutoLISP programs for use in drawings
- understand the basic use of symbol tables
- kno

Content:

Course objectives will be achieved by providing students with instructional and hands-on experiences in the following areas:

- understanding and applying elements and variables in creating AutoLISP expressions
- creation and use of AutoLISP program files

- processing and storage data files
- user input and math functions
- programming techniques using string manipulation, looping, and conditional expressions
- selection set operations
- file handling and programming files for drawings
- use of symbol tables
- use of programming dialog boxes.

General Education Outcomes:

2) Write clearly, informatively, and persuasively.
Students are required to complete descriptive term-sheets which provide information about the vocabulary and terminology used in this specific area. The descriptions are reviewed, graded, and returned to students for improvement.

4) Retrieve, evaluate, interpret, and deliver information through a variety of traditional and electronic media.
Students will research information (i.e. styles, layouts, mechanical parts, connectors, fasteners, etc.) through the Internet, written manuals, journals, and other publications. This information is used to complete projects and assignments throughout the program.

6) Apply computational skills to a variety of contexts.
The field of drafting requires the combination of basic math, geometry, and algebra skills. Students will utilize these skills when producing drawings, cost estimates, and material lists.

Key Performance Indicators:

In class:

- Students will demonstrate mastery of course competencies by completing assignments/projects, tests, and quizzes. Assignments/projects are worth 75%, tests are worth 15%, and quizzes are worth 10% of the final grade.

Following class:

- The knowledge and skills acquired in this course will be demonstrated in subsequent courses and in enhanced CAD application skills to improve employment productivity.

Representative Text and/or Supplies:

- *AutoLISP Programming, Principles and Techniques,* current edition, Goodheart-Wilcox Company, Inc.

Optimum Class Size: 12
Maximum Class Size: 20

Signatures:

I hereby submit this course syllabus:

Craig Conder, ,

I hereby find this course consistent with the goals and resources of the Drafting Technology Department:

Craig Conder, , , Chair

I hereby find this course consistent with the goals and resources of the Career and Technical Education Division:

Michael P. Medley, MBA, Assistant Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

Michelle Olsen, MLS, Campus Librarian (Richfield Campus)