Course Description: An introduction to basic computer-aided drafting. Emphasis is placed on drawing setup; creating and modifying geometry; storing and retrieving files predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinating systems; as well as input and output devices.

Co-requisite: DFTG 1305

Text, References, and Supplies: Tutorial Guide to AutoCAD 2017
Shawna Lockhart

This class will utilize the required text throughout the entire semester; therefore, having a book is essential.

Software: AutoCAD

The student will need to provide his/her own:
USB Flash Drive - REQUIRED

These supplies may be needed in future classes.

Course Goals/Objectives: The modern drafting offices use computers to generate and maintain their drawings. Use of computers and specialized software is mandatory of drafters and designers. The students will be exposed to drafting in various industries, including: architectural, topographical, piping, and 3D modeling. Upon successful completion of the course the student will have demonstrated the ability to:

1. Identify the basic components of a CAD workstation.
2. Describe and perform new drawing creation.
3. Utilize the various input methods including: absolute coordinates, relative coordinates, polar coordinates, and direct entry.
4. Utilize AutoCAD shortcuts including: command line alias’ and function (F) keys.
5. Use and understand draw panel commands.
6. Use and understand modify panel commands.
7. User and understand layer panel commands.
8. Describe and utilize layers appropriately on a CAD drawing.
9. Use and understand the Annotate tab commands, including dimensions, dimension styles, text, and text styles.
10. Use, understand, and create blocks.
11. Understand the use of Xrefs.
12. Use and understand drawing templates, paper space, viewports, and plotting.
13. Create 3D solid models
14. Use and understand the UCS, dynamic UCS, and viewports
15. Create drawings from solid models.
16. Create section views from solid model.
Student Contributions and Class Policies:

1. Students are expected to exhibit professional behavior during scheduled class times.
2. Regular and punctual attendance is expected of all students in all classes for which they have registered.
3. All absences are considered to be unauthorized unless the student is absent due to sickness or emergencies.
4. The instructor is responsible for judging the validity of any reasons given for absence.
5. Students will not be allowed to make up an examination missed due to an absence unless they have reasons acceptable to the instructor.
6. Students may be dropped from a class by the registrar, on or before the twelfth day of class, upon recommendation of the instructor who feels the student has been unjustifiably absent or tardy a sufficient number of times to preclude meeting the course objective.
7. After the twelfth day of class, it is the student's responsibility to initiate the drop in the Office of Student Services. Failure to do so may result in the student's receiving a grade of “F.”
8. Students are responsible for maintaining, organizing, and backing-up copies of all digital files. Failure to maintain an up-to-date backup may result in data loss.

Evaluation of Students:

- Regular daily work................................. 40%
- Periodic tests ....................................... 10%
- Attendance & Participation....................... 15%
- Final Project ........................................ 20%
- Final Exam .......................................... 15%

- 90 and above A
- 80-89 B
- 70-79 C
- 60-69 D
- 0-59 F

Course Schedule:

This class meets two or four times a week, for a total of two (2) lecture hours and four (4) lab hours.

Due dates for course assignments will be announced throughout the semester. This will be subject to the progression of the class, therefore attendance is very important.
INFORMATION:
Students will acquire and evaluate information from existing sources and determine its relevance and accuracy as needed to build a systematic information base. Students will employ computers to acquire, organize, analyze, and communicate information.

TECHNOLOGY:
Applies technology to task, understands overall intent and proper procedures for setup and operation of equipment and computer hardware and software.

READING:
Students will locate, understand, and analyze data in documents including manuals, graphs, and schedules to perform tasks. The students will learn from a text to determine the main idea or essential message, the relevant facts and specifications, the meaning of unknown or technical vocabulary, and the appropriateness of theories of other writers.

MATHEMATICS:
Approaches practical problems by choosing appropriately from a variety of math techniques. Students will use basic math calculations throughout the course work.

LISTENING/SPEAKING:
Students will receive, attend to, interpret, and respond to verbal messages and other cues such as body language in ways that are appropriate to the purpose; for example, to comprehend; to learn; to critically evaluate; to appreciate; or to support the speaker.

PERSONAL QUALITIES:
The students will display responsibility, self-esteem, sociability, self-management, integrity and honest toward goal attainment and perseverance.

Students with Disabilities:
Any student who, because of a disabling condition, may require some special arrangements in order to meet course requirements should contact Shep Grinnan as soon as possible. Mr. Grinnan’s office is located in the Scharbauer Student Center Building. These conditions may include documented physical or educational disabilities. Please be aware that services or accommodations are not automatic. Each student must request them and secure the proper authorizations/documentation.
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