El Paso Community College
Syllabus
Part II
Official Course Description

SUBJECT AREA	**Computer-Aided Design**
COURSE RUBRIC AND NUMBER	**DFTG 1309**
COURSE TITLE	**Basic Computer-Aided Drafting**
COURSE HOURS	**3 2 : 4** **Credits Lec Lab**

I. Catalog Description

Introduces computer-aided drafting. Emphasizes setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinate systems, and plot/print to scale. **(2:4).**

II. Course Objectives

Upon satisfactory completion of this course the student will be able to:

A. Unit I. Introduction and Start-up Procedures

1. Perform equipment start-up procedures.
2. Recognize and distinguish between menus, text screen, and command line.
3. Turn on or off the various tools.
4. Demonstrate file management techniques while practicing computer security

B. Unit II. Measuring and Data Input

1. Utilize architectural/Engineering scales
2. Interpret/Convert units of measure
3. Use AutoCAD's coordinate system.
4. Utilize the various methods of 2D coordinate data entry.
5. Demonstrate basic math skills and geometry formulas to prepare a sketch
6. Use various precision tools.

C. Unit III. Drawing Setup, Block Diagrams, and Text Styles

1. Perform basic drawing setup.
2. Use limits and drawing aids.
3. Use AutoCAD templates.
4. Identify text standards and text commands.
5. Create and use text styles.
6. Create and use appropriate formats with title blocks.
7. Create block diagram drawings.

D. Unit IV. Drawing Dynamics, Single View Drawings, and the Editing Functions

1. Identify the alphabet of lines.
2. Identify the different scale forms and use them properly.
3. Draw basic geometric shapes.

4. Utilize free hand sketching.
5. Draw single view drawings using appropriate layering methods.
6. Demonstrate an understanding of object snap modes, xy point filters, and grips.

E. Unit V. Basic Dimensioning, Drawing Display Options, and Layouts

1. Demonstrate an understanding of model space and paper space.
2. Create tiled and floating viewports.
3. Utilize display options.
4. Demonstrate an understanding of scaling through viewports.
5. Define appropriate dimension styles.
6. Dimension single view drawings in both model space and paper space.

F. Unit VI. Threads, Fasteners, and Springs

1. Identify the terminology in use for screws, fasteners, and springs.
2. Identify different methods for thread representation.
3. Draw detailed representations of screws, fasteners, and springs.

G. Unit VII. Orthographic (Multi-View) Drawings and Layering Assignments

1. Identify the relationship of standard orthographic views.
2. Identify the relationship of non-standard orthographic views.
3. Draw and dimension multi-view drawings using appropriate layering methods.

H. Unit VIII. Sections, Auxiliaries, and Editing

1. Identify the different types of sections and section labeling techniques.
2. Recognize and properly use hatch patterns.
3. Identify the relationship of primary views to standard views.
4. Produce fully dimensioned primary auxiliary view drawings.
5. Use basic editing commands; use the block, wblock, and insert commands; and use grips to do automatic editing.

I. Unit IX. Working Drawings

1. Create fully dimensioned detail drawings.
2. Create an assembly drawing.
3. Setup paper space, an appropriate format, and applicable notes.
4. Utilize output devices such as plotters and printers.

III. THECB Learning Outcomes (WECM)

1. Identify terminology and basic functions used with CAD software.
2. Use CAD hardware and software to create, organize, display, and plot/print working drawings.
3. Use file management techniques.

IV. Evaluation

A. Challenge Exam

There is a challenge exam available for this course. Coordination for any challenge exam should be made through the Drafting Department Coordinator.

B. Post-assessment

1. The instructor will maintain a continuous record of each student's progress.
2. Students should be evaluated periodically throughout the semester.
3. The instructor will determine the weight of each graded assignment.
4. Instructors may require drawing assignments, quizzes, practical/written drawing exams, and formal exams.

C. Grading Scale

A = 92.5 - 100
B = 85.0 - 92.4
C = 75.0 - 84.9
D = 65.0 - 74.9
F = below 65
I = Incomplete
W = Withdrew or Withdrawn

For grade percentage of individual assignments and exams refer to the Syllabus - Instructor's Course Requirements.

V. Disability Statement (Americans with Disabilities Act [ADA])]

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201 (831-4198); NWC Rm M-54 (831-8815); and MDP Rm A-125 (831-7024).

VI. 6 Drop Rule

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.