

DESN 103 - CAD Fundamentals



Course Title:	CAD Fundamentals
Course Number:	DESN 103
Section Number:	51C
Term:	FALL 2012
Location:	Room 1425
Prerequisites:	None
Division:	Technology
Program:	Design Technology
Credit Hours:	3
Contact Hours:	4 --- 2 Lecture, 2 Lab
Instructor:	Matt Christman, Adjunct Faculty e-mail: mchristman1@ivytech.edu
Required Text:	<i>AutoCAD and Its Applications Basics 2012</i> , by Shumaker, Madsen, and Madsen
Optional Reference:	<i>The Illustrated AutoCAD 2012 Quick Reference</i> , by Grabowski
Required Equipment:	USB Flash Drive to save your work. You are responsible for maintaining your data.
Catalog Description:	The purpose of this introductory course is to provide students with a basic understanding of the features and considerations associated with the operation of a computer-aided drafting (CAD) system. Students will gain valuable hands-on experience using CAD software. They will be expected to complete several projects (increasing in difficulty) relating to command topics covered on a weekly basis.
Course Content:	Topical areas of study include: Objects, Layers, Setup, Styles, Formatting, Object Modification, View Characteristics, Printing/Plotting, Exporting
Major Course Learning Objectives:	Upon successful completion of this course the student will be expected to:
(1)	Identify by name CAD hardware and software components.
(2)	Do commands for file management including format, copy, and delete.
(3)	Identify and use multiple input methods to select commands on the CAD system.
(4)	Retrieve and use help commands.
(5)	Create working 2D drawings.
(6)	Modify drawing elements using editing commands.
(7)	Retrieve and place multiple text styles.
(8)	Dimension a drawing using current drafting standards.
Ivy Tech Library:	The Ivy Tech library is accessible to both students on and off-campus, offering full text journals, books and other resources essential for course assignments. Go to http://ivytech.edu/library/ and choose the link for the Fort Wayne campus.

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Class Format:	The format of the class is "Demonstration" immediately followed by "Open Lab". It is your responsibility to pay attention to the demonstration portion of the class so that you will be able to understand each drawing problem assigned.
Attendance Policy:	You are expected to attend every class. Lectures will not be repeated. No make-up or late assignments will be accepted.
Drawing Problems:	You are expected to complete all drawing problems in class and have them checked by the instructor before leaving each evening.
Final Project:	The final project will be assigned in the Week 11 class session and is due at the end of the Week 15 class session. You have plenty of time to complete your final project. Get started right away. Each week work on the portions of the final project that relate to the new material covered in class. Do not wait until the last minute to get started. It is a major portion of your course grade.
Grading Policy:	Drawing Problems 25%, Mid-Term Exam 25%, Project 25%, Final Exam 25%
Design Technology Computer Labs:	The Design Technology Computer Labs are owned by the college and maintained by the full time program faculty members. We work very hard to provide our students with a neat, clean, professional computer lab with software and hardware ranging from the latest available to no more than four years old. You are guests in our computer lab. As such I expect that you will conduct yourself accordingly. Do not change any of the computer settings (i.e. screen resolution). Absolutely no food or drink are allowed in the computer lab. Notify the instructor of any problems with the computer equipment. You are expected to straighten out the computer, monitor, keyboard, mouse pad, mouse, and chair before you leave. Also, close all open programs and "shut-down" the computer before you leave. You do not need to press the on/off buttons on the computer or monitor as they will automatically go into sleep mode.
Academic Honesty Statement:	Ivy Tech Community College is committed to academic integrity in all its practices. The faculty value intellectual integrity and a high standard of academic conduct. Activities that violate academic integrity undermine the quality and diminish the value of educational achievement. Cheating on tests, papers and other academic works is a violation of college rules. No student shall engage in behavior that, in the judgment of the instructor of the class, may be construed as cheating. This may include, but is not limited to, plagiarism or other forms of academic dishonesty such as the acquisition without permission of tests or other academic materials and/or distribution of these materials and other academic work. This includes students who aid and abet as well as those who attempt such behavior.
ADA Statement:	Ivy Tech Community College seeks to provide effective services and accommodations for qualified individuals with documented disabilities. If you need an accommodation because of a documented disability, please contact the Office of Disability Support Services.

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Copyright Statement:	Students shall adhere to the laws governing the use of copyrighted materials. They must insure that their activities comply with fair use and in no way infringe on the copyright or other propriety rights of others and that the materials used and developed at Ivy Tech Community College contain nothing unlawful, unethical or libelous and do not constitute any violation of any right of privacy.
ATMAE Requirements:	Students wishing to graduate from a School of Applied Science and Engineering or the School of Technology from Ivy Tech Community College Northeast must complete at least 12 semester hours of Management and/or Technical training. This requirement is concurrent with the college requirement that each student must complete 15 semester hours at this institution. Students transferring to Ivy Tech Community College Northeast and entering into the School of Applied Science and Engineering or the School of Technology must also meet the 12 semester hours of Management and/or Technical training. Credits considered for transfer may be from another Ivy Tech ATMAE accredited campus or obtained from an ATMAE accredited institution.
Right of Revision Statement:	This is a tentative course syllabus. The Instructor reserves the right to make changes to the syllabus at any time. You are responsible to know and comply with all of the information contained in this syllabus and, if necessary, any revisions announced or handed out in class.

Week 1

Introduction to AutoCAD
QSAVE, SAVEAS, CLOSE, OPEN

Week 2

Drawing and Editing
Absolute, Relative and Polar Coordinates
LINE, ERASE, UNDO, REDO

Week 3

Basic Object Tools
CIRCLE, ARC, ELLIPSE, POLYLINE, PEDIT,
EXPLODE, POLYGON, RECTANGLE

Week 4

Object Snaps

Week 5

Basic Object Editing Tools
FILLET, CHAMFER, BREAK, TRIM, EXTEND,
EDGEMODE

Week 6

ZOOM, PAN, OFFSET, MOVE, COPY
MIRROR, ARRAY, ROTATE

Week 7

Linetypes
LTSCALE, MATCHPROP

Week 8

MID-TERM

Week 9

Setting Up and Using Layers

Week 10

Multiview Drawings

Week 11

Introduction to Project

Week 12

Single Line and Multiline Text

Week 13

Dimensioning

Week 14

Printing/Plotting

Project Workday

Week 15

Project Due

FINAL EXAM

Week 16

Go Over Grades for Project and Final Exam