Bergen Community College
Division of Math, Science and Technology
Department of Industrial & Design Technology

Course Syllabus
DFT 211 CAD II

Semester and year:
Course Number:
Meeting Times and Locations:

Instructor:
Office Location:
Phone:
Office Hours:
Email Address:

COURSE DESCRIPTION:

DFT 211 Computer Aided Drafting II continues the work of CAD I and covers intermediate level and advanced CAD skills. Included in this course will be file management, blocks, attributes, dynamic blocks, external references, parametric drafting, 3D surfaces & solids, rendering and architectural drawings using AutoCAD Architecture.
3 lectures, 5 labs, 5 credits
Prerequisites: DFT-201 CAD I
Co-requisites: None

STUDENT LEARNING OBJECTIVES:

As a result of meeting the requirements in this course, students will be able to:	Student performance on these objectives will be measured by:
1. Recognize the importance of using block symbols in CAD drawings.	Drawing exercises and exam questions.
2. Recall various commands used to draw and model geometry in 3D.	Drawing exercises, final project drawing, and exam questions.
3. Identify the software features used to produce rendered drawings.	Final project drawing and exam questions.
4. Demonstrate the value in customizing the software.	Drawing exercises and exam problems.
5. Identify the benefits to using architectural add-on software.	Drawing exercises, final project drawing, and exam questions.
6. Define and implement productive and efficient drawing techniques.	Observation during lecture/lab and final exam questions.

COURSE CONTENT:		AutoCad and its Applications, Basic and Advanced:

CHAPTER		TOPIC
Basics	22	Parametric Drawing
	24	Standard Blocks
	25	Block Attributes
	26	Intro To Dynamic Blocks
	27	Additional Dynamic Block Tools
	30	Annotative Objects
	31	External References
Advanced	1	Intro to 3D Modeling
	2	Creating Primitives
	3	Mesh Modeling
	4	Views & Displaying 3D Models
	6	3D Coordinates and Constructions, Understanding User coordinate systems
	9	Extrusions & Revolutions
	10	Sweeps & Lofts
	11	Creating and Working with Solid Model Features
	12	Sub Object Editing
	13	Solid Model Editing
	14	Model display & analysis
	15	Visual Styles & Basic Rendering
	16	Materials
	17	Lighting
	18	Advanced Rendering
	19	Camera's, Walk thru's, & Fly-by's
	21	Customizing AutoCad environment
	22	Customizing Tools and Tool Locations
	23	Customizing Key click actions
	24	Tool Palette customization
	25	Using Profiles & Workspaces
	27	Intro to AutoLisp
	28	Beyond AutoLISP Basics

TEXTBOOKS:

AutoCad and its Applications – **Basic**, Goodheart Wilcox Publishing

AutoCad and its Applications – **Advanced**, Goodheart Wilcox Publishing

Accessing AutoCAD Architecture, Wyatt, Delmar/Cengage Learning Publishers.

EVALUATION:

A. CAD Drawings 60%
B. Mid-Term Exam…………....10%
C. Exam 10%
D. Final Drawing Project 10%
E. Class Participation 10%

Drawings are due the class meeting after they are assigned. Drawings submitted after that date will be lowered one full letter grade per class meeting that they are late. Drawings will not be accepted after the final submission date listed in the calendar and will receive a failing grade after that last submission date.

ATTENDANCE POLICY:

Attendance will be taken twice during each class period. The first attendance for the lecture portion of the class will be at the beginning of each class. The second attendance, for the laboratory portion of the class will be taken at 11:30 a.m. for classes beginning in the morning, 5:15 p.m. for classes beginning early afternoon, and 9:45 p.m. for evening classes.

If a student is absent from the lecture portion of the class, it will be recorded as an absence for the entire class period. If a student is absent from the laboratory portion of the class, it will be recorded as an absence from that portion of the class only.

A letter grade will be deducted from the class participation portion of your final grade for each absence beyond three absences from either portion of a class period.

SPECIAL NOTES: **A final grade cannot be assigned for the course until all drawings, projects and examinations for the course have been completed.**

Make-up examinations will be administered in accordance with the instructor's and division's policy.

FACULTY ABSENCE PROCEDURE: Please note well.

A daily listing will appear in the glass case located in the main hall A bldg. which will indicate all classes which are cancelled.   Students can consult this case before going to class. If students find a class cancelled which has not been listed, they should report this to the divisional dean's office (A325) or to the evening/Saturday office (L113).

CALENDAR:

CLASS MEETING	DATE	TOPIC	CHAPTER
1	_____	Parametric Drafting & Annotative Objects	B-22,23
2	_____	Blocks: Design Center	B-24
3	_____	Block Attributes	B-25
4	_____	Dynamic Blocks	B-26/27
5	_____	External References (Xrefs)	B-31
6	_____	Open Lab	-
7	_____	3D Part I Solids 1-Primitives/UCS	1,2,4,6
8	_____	3D Part II Solids 2-Modeling	6,9
9	_____	3D Part III Solids 2-Adv.shapes	7,8,9
10	_____	3D Part IV Solids 3-Editing	3,11,12,13,14

		Intro to Mesh Modeling	
11	_____	3D Part V Render 1- Lights	15,17
12	_____	**MID-Term Exam - 10%**	-
13	_____	3D Part VI Render 2-Materials	16
14	_____	3D Part VII Render 3-Printing	
15	_____	Customizing AutoCAD I	21,22
16	_____	Customizing AutoCAD II	23,24
17	_____	Customizing AutoCAD III	25,26
18	_____	Using AutoLISP **Project Announcement**	27,28
19	_____	Open Lab	-
20	_____	AArch Part I Walls,doors, windows	Acces. AA 2,3,5
21	_____	AArch II Des Cen. Struc.,grids,strs **Project Commitment**	10,13
22	_____	AArch III Flr/Rf Slabs, Elev./Sec.	7,8,12
23	_____	AArch IV Proj. Based/Models	12
24	_____	Open Lab	-
25	_____	AArch V Details	12
26	_____	AArch VI Annotation/ Rendering	11
27	_____	Open Lab	-
28	_____	Open Lab	-
29	_____	Final Exam - 10% **Last Day to Submit Final Project**	-
30	_____	Project Presentations (10%)	-

All BCC students enrolled in credit courses are entitled to a WebAdvisor account. With WebAdvisor, you may register online, check your schedule, room assignments, GPA, and find out what courses you need to take. To find out more about WebAdvisor or to sign up online, visit <http://go.bergen.edu>! While there, please make sure you give us your preferred email address. You'll find directions how to do this at <http://go.bergen.edu/email>.