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

Course Syllabus
DFT 212 CAD III

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

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

COURSE DESCRIPTION:

DFT-212 CAD III is a hands-on experience where students will develop still or animated photo realistic presentations from 2D or 3D CAD drawings. The course includes a study of light and shading techniques, assigning materials to surfaces, graphics file formats, motion techniques used in animations, and output to both video and hard-copy devices.
2 lecture, 2 labs, 3 credits
Prerequisites: DFT 211 CAD II
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. Students will be able to implement different methods of CAD rendering and shading techniques used to create photorealistic images.	Drawing exercises and final animation project.
2. Students will demonstrate the value of high quality rendered and animated CAD presentations.	Drawing exercises and final animation project.
3. Students will be acquainted with the use of multimedia techniques used to enhance a CAD presentation.	Drawing exercises, mid-term exam and final animation project.

COURSE CONTENT: 3D Studio Max 2014 Bible:

Chapter	Topic
1	Exploring the Max Interface (Pg. 15)
2	Controlling the Viewports
3	Working with files, Importing & Exporting

4	Creating & Editing Primitive Objects
6	Transforming Objects, Pivoting, Aligning & Snapping
9	Introducing Subobjects Modifiers & Using the Modifier Stack
14	Creating & Applying Standard Materials with the Slate Material Editor
15	Adding Material Details with Maps
16	Creating Compound Materials and using Material Modifiers
18	Configuring & Aiming Cameras
19	Using Lights & Basic Lighting Techniques
20	Rendering a Scene & Enabling Quicksilver
22	Rendering with Mental Ray & Iray
24	Understanding Animation & Keyframes
25	Animating with Constraints & Simple Controllers
32	Creating Particles
33	Using Space Warps

TEXTBOOK: 3D Studio Max 2014 Bible, Kelly L. Murdock, Wiley, 2013
              PhotoShop CS 5 Bible, Danae Dayley, Wiley, 2010

EVALUATION: A.   Drawings 30%
              B.   Final Animation Project.......50%
              C.   Mid Term Exam...................10%
              D.   Class Participation................10%

Assignments are due the class meeting after they are assigned (Unless otherwise noted by instructor). Assignments submitted after that date will be lowered one full letter grade per class meeting that they are late. Assignments 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 (S338) or to the evening/Saturday office (L113).

CALENDAR:

CLASS MEETING	DATE	TOPIC	CHAPTER
1	_____	New Features of AutoCAD & AutoCAD Architecture	
2	_____	PhotoShop I; Interface, selection tools, image correction tools	2,3,8
3	_____	PhotoShop II ; Layers, soft edged vignettes, drop shadow, Blend modes	8, 12,14
4	_____	PhotoShop III Brushes, Opacity Maps, Layer Masks, Gradient Effects **Exam (10%)**	5, 7,12, 13
5	_____	MAX Part I: Intro to interface, Primitives, Intro to animation **Animation Project announcement**	1, 2, 5, 7
6	_____	MAX Part II: Special Effects – Cloth, Particle Systems, Fire, etc.	
7	_____	MAX II: Importing AutoCad geometry & Blocks Materials editor I	3, 7, 11, 17
8	_____	MAX III: Animation I **Animation Project commitment**	21
9	_____	MAX IV: Cameras & Animation II	19, 21, 22
10	_____	MAX V: Lights I & Materials II **Due Date**: Scene Creation - Basic Geometry in Place	15, 16, 20
11	_____	MAX VI: Lights & Shadows	20, 45, 47
12	_____	MAX VII: Animation III **Due Date**: Animation preview in .AVI	41, 44, 47
13	_____	OPEN LAB	--
14	_____	**Final Animation Project Due** (Value:50% of course grade)	--
15	_____	Video presentations	--

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>.