

APTECH 84 Course Outline as of Fall 2017**CATALOG INFORMATION**

Dept and Nbr: APTECH 84 Title: ANIMATION DRAFTING

Full Title: Computer Animation for Drafting/Design

Last Reviewed: 10/18/2010

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	3.00	Lab Scheduled	3.00	8	Lab Scheduled	52.50
		Contact DHR	0		Contact DHR	0
		Contact Total	5.00		Contact Total	87.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00

Total Student Learning Hours: 157.50

Title 5 Category: AA Degree Applicable

Grading: Grade Only

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly:

Catalog Description:

Computer animation utilizing AutoDesk's 3D Studio Max Software. The student will produce broadcast quality animations of architectural interior and exterior 3-dimensional scenes.

Prerequisites/Corequisites:

Course Completion of APTECH 57

Recommended Preparation:**Limits on Enrollment:****Schedule of Classes Information:**

Description: Computer animation utilizing AutoDesk's 3D Studio Max Software. The student will produce broadcast quality animations of architectural interior and exterior 3-dimensional scenes. (Grade Only)

Prerequisites/Corequisites: Course Completion of APTECH 57

Recommended:

Limits on Enrollment:

Transfer Credit:

Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	Area	Effective:	Inactive:
CSU GE:	Transfer Area	Effective:	Inactive:

IGETC:	Transfer Area	Effective:	Inactive:
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CSU Transfer:	Effective:	Inactive:
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UC Transfer:	Effective:	Inactive:
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CID:

Certificate/Major Applicable:

Not Certificate/Major Applicable

COURSE CONTENT

Outcomes and Objectives:

1. Construct 3D objects utilizing the 3D Studio Max software program.
2. Import models from AutoDesk's AutoCAD drafting/design software program.
3. Assign bitmap materials to 3D objects utilizing 3D Studio Max's materials editor and mapping coordinates.
4. Set and adjust lighting and shadows.
5. Render 3D scenes.
6. Describe movement of objects, lights, and camera in animations.
7. Produce broadcast quality animations.
8. Repeat students will update their skills utilizing new software releases and increase the level of complexity and sophistication of their projects.

Topics and Scope:

- I. Review of AutoCAD's 3D viewing, construction, and editing commands
- II. Overview of the 3D Studio Max software program to include: 3D modeling, material assignment, lighting, camera, rendering, and keyframing
- III. Creating 3D objects in 3D Studio Max
 - A. 3D primitives
 - B. 2D shapes
 - C. Lofts
 - D. Booleans
 - E. Mesh modeling
 - F. Modifiers
- IV. Importing AutoCAD files for utilization in 3D Studio Max
- V. Assigning bitmap materials
- VI. Editing bitmap materials
- VII. Mapping coordinates
- VIII. Setting and adjusting light sources and shadows.
- IX. Creating animations utilizing 3D Studio's Max's keyframe editor

- A. Object movement
- B. Keying cameras
- C. Keying lights
- D. Looping animations
- X. Maneuvering links, morphing and special effects
- XI. Post production
 - A. Rendering
 - B. Video post effects
- XII. With repeat:
 - A. New software releases
 - B. Project complexity and sophistication

Assignment:

1. Reading assignments, 20-30 pages per week
2. Problem sets (1-2 per week)
3. Interior scene architectural animation (2 total)
4. Exterior scene architectural animation (2 total)
5. Quizzes (2-3), and final exam
6. Repeating students will:
 - a. update their skills on new software releases
 - b. increase the level of complexity and sophistication of their projects

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments and skill demonstrations are more appropriate for this course.

Writing
0 - 0%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Problem sets

Problem solving
30 - 50%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Interior scene architectural animation; exterior scene architectural animation

Skill Demonstrations
30 - 50%

Exams: All forms of formal testing, other than skill performance exams.

Quizzes, final exam

Exams
10 - 20%

Other: Includes any assessment tools that do not logically fit into the above categories.

None

Other Category 0 - 0%

Representative Textbooks and Materials:

How to Cheat in 3D Studio Max 2010: Get Spectacular Results Fast, by M. Bousquet, Focal Press, 2009
Poly-modeling with 3D Studo Max, by T. Daniele, Focal Press, 2009