

MIDLAND COLLEGE
SYLLABUS
DFTG 1302
INTRO TO TECHNICAL ANIMATION AND RENDERING
2-4

Course Description: This course deals with special problems associated with computer graphics. Specialized software will be used to explore animation and rendering techniques. Assignments will provide the student with a full working knowledge of animation techniques, including lights, camera settings, paths, and advanced modeling procedures.
Prerequisite: DFTG 2340 or consent of instructor

This course will concentrate on challenging the students with special assignments designed to incorporate processes developed in previous course work and apply it to animation routines.

**Text, References,
and Supplies:**

Software: 3D Studio Max

The student will need to provide his/her own:
USB Flash Drive - **REQUIRED**

These supplies may be needed in future classes.

**Course
Goals/Objectives:**

The following list of course goals will be addressed in the course. The goals are directly related to the performance objectives. Upon successful completion of the course the student will:

1. *Manage files* within the 3D software being used.
2. Understand *viewing* and *navigating* in 3D space.
3. Understand general *Viewport* concepts.
4. Understand *Perspective Views*.
5. *Set Viewport Layout*.
6. Use *Standard View* navigation.
7. Understand *Object Selection*.
8. Understand *Sub-Object Selection*.
9. Understand *Using Groups*.
10. *Apply Transforms*.
11. *Transform Managers*.
12. Specify a *Transform Coordinate System*.
13. Explain *Precision Tools*.
14. Define *Units*.
15. Define *Grids*.
16. Use the *Create Panel*.
17. Use the *Modify Panel*.
18. Modify multiple objects.
19. Explain techniques for cloning objects.
20. Explain editing spline segments.
21. Explain editing splines.
22. Create shapes for Loft Objects.
23. Loft with Get Path.
24. Loft with Get Shape.
25. Control surface appearance.
26. Generate a path.

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27. Create and edit NURBS models: Objects and Sub-Objects and edit NURBS curves.
28. Apply and use Edit patch.
29. Define Editing Meshes.
30. Use Mesh-Based Modifiers.
31. Create Booleans.
32. Create Shape Merge Objects.
33. Create a Particle System.
34. Choose a Particle Shape and Size.
35. Control a Particle Motion.
36. Be able to Light a Scene.
37. Create Light Objects.
38. Set Ambient and Global light values.
39. Cast Shadows.
40. Understand setting up cameras and characteristics of cameras.

**Student
Contributions and
Class Policies:**

1. Students are expected to exhibit professional behavior during scheduled class times.
2. Regular and punctual attendance is expected of all students in all classes for which they have registered.
3. All absences are considered to be unauthorized unless the student is absent due to sickness or emergencies.
4. The instructor is responsible for judging the validity of any reasons given for absence.
5. Students will not be allowed to make up an examination missed due to an absence unless they have reasons acceptable to the instructor.
6. Students may be dropped from a class by the registrar, on or before the twelfth day of class, upon recommendation of the instructor who feels the student has been unjustifiably absent or tardy a sufficient number of times to preclude meeting the course objective.
7. After the twelfth day of class, it is the student's responsibility to initiate the drop in the Office of Student Services. Failure to do so may result in the students receiving a grade of "F."
8. Students are responsible for maintaining, organizing, and backing-up copies of all digital files. Failure to maintain an up-to-date backup may result in data loss.

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Evaluation of Students:	Punctual attendance.....	10%
	Regular assignments	40%
	Periodic Tests.....	10%
	Final Exam/Project.....	40%

90 and above	A
80-89	B
70-79	C
60-69	D
0-59	F

(1 point per absence up to 10% of grade)

Course Schedule: This class meets two times a week, for a total of two (2) lecture hours and four (4) lab hours.

Due dates for course assignments will be announced throughout the semester. This will be subject to the progression of the class, therefore attendance is very important.

SCANS Information: INFORMATION:
 Students will acquire and evaluate information from existing sources and determine its relevance and accuracy as needed to build a systematic information base. Students will employ computers to acquire, organize, analyze, and communicate information

TECHNOLOGY:
 Applies technology to task, understands overall intent and proper procedures for setup and operation of equipment and computer hardware and software.

READING:
 Students will locate, understand, and analyze data in documents including manuals, graphs, and schedules to perform tasks. The students will learn from a text to determine the main idea or essential message, the relevant facts and specifications, the meaning of unknown or technical vocabulary, and the appropriateness of theories of other writers.

MATHEMATICS:
 Approaches practical problems by choosing appropriately from a variety of math techniques. Students will use basic math calculations throughout the course work.

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SCANS Information
Continued:

LISTENING/SPEAKING:

Students will receive, attend to, interpret, and respond to verbal messages and other cues such as body language in ways that are appropriate to the purpose; for example, to comprehend; to learn; to critically evaluate; to appreciate; or to support the speaker.

PERSONAL QUALITIES:

The students will display responsibility, self-esteem, sociability, self-management, integrity and honest toward goal attainment and perseverance.

Students with
Disabilities:

Midland College provides services for students with disabilities through Student Services. In order to receive accommodations, students must visit www.midland.edu/accommodation and complete the Application for Accommodation Services located under the Apply for Accommodations tab. Services or accommodations are not automatic, each student must apply and be approved to receive them. All documentation submitted will be reviewed and a "Notice of Accommodations" letter will be sent to instructors outlining any reasonable accommodations.

Midland College Non-Discriminatory Statement:

Midland College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following individual has been designated to handle inquiries regarding the non-discrimination policies:

Tana Baker

Title IX Coordinator/Compliance Officer

3600 N. Garfield, SSC 131

Midland, Texas 79705

(432) 685-4781

tbaker@midland.edu

For further information on notice of non-discrimination, visit the ED.gov Office of Civil Rights website, or call 1 (800) 421-3481

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**Program
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