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.
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.
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.
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.
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.
SCANS Information

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 honesty toward goal attainment and perseverance.

Students with Disabilities:
Any student who, because of a disabling condition, may require some special arrangements in order to meet course requirements should contact Shep Grinnan as soon as possible. Mr. Grinnan’s office is located in the Scharbauer Student Center Building. These conditions may include documented physical or educational disabilities. Please be aware that services or accommodations are not automatic. Each student must request them and secure the proper authorizations/documentation.

Midland College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following individuals have been designated to handle inquiries regarding the non-discrimination policies: Tana Baker, Title IX Coordinator/Compliance Officer, 3600 N. Garfield, SSC 242, Midland, TX 79705, (432) 685-4781, tbaker@midland.edu; Natasha Morgan, Director Human Resources/Payroll, 3600 N. Garfield, PAD 104, Midland, TX 79705, (432) 685-4534, nmorgan@midland.edu. For further information on notice of non-discrimination, visit http://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm or call 1 (800) 421-3481.

Spanish

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