ATCM 3308 Rigging I
Josh Carey
Term: Spring 2025
Meeting Time: Wednesday 4:00 pm - 6:45 pm
Room: ATC 3.910

Contact Info Email: joshua.carey@utdallas.edu

Course Modality and Expectations

Instructional Mode: Traditional
Expectations: Lectures will be given in class each week. Videos and homework assignments will be made available on eLearning. Students are expected to watch the videos each week and to complete assignments as directed on eLearning.

Covid-19 Guidelines and Resources

https://www.utdallas.edu/coronavirus/students/
https://go.utdallas.edu/syllabus-policies

Course Description:

This course is an introduction to the concepts, tools and techniques used in 3D animation for setting up clean and efficient 3D rigs that can easily be animated. Topics will include hierarchical structures, joints and bones, constraints, creating useful and predictable deformations and setting up simple and intuitive control structures for use in animation. Introductory animation techniques will also be covered.

Course Requirements:

Students must have completed ANGM 2310.

Course Structure:

This class will consist of lectures, videos, and assignments.

Course Objectives:

Through the successful completion of this course students will:

- Establish an understanding of the basic principles of creating moveable 3D computer-generated forms
- Develop a new set of vocabulary of terms and concepts related to the creation and manipulation of computer graphics
- Develop specific character setup animation skills for both collaborative and independent work in animation
- Establish a methodology for analyzing and problem solving as it relates to 3D computer-generated forms
- Continue to develop the ability to offer informed and constructive, technical and aesthetic critiques of the work of peers and of self
- Develop a practical understanding of the specific computers and software used in the course

Required Textbook:

There is no required text for this course. The primary learning resources for this course will be video material available at Vimeo.com. Links will be provided for each assignment.

Required Materials:

Note taking materials (notebook, pens, pencils, etc.), and access to a computer that has the required software.

Course Materials:

The eLearning website will be used for links to Vimeo videos, homework assignments, example files, special class announcements and posting of grades. All student assignments should be placed in the shared folder at Box.com.

Grading Policy:

Students must demonstrate satisfactory achievement of course objectives through fulfillment of course assignments and by contributing to class discussions and critiques. Course assignments will require students to use software and equipment available at the ATEC computer labs. Grades and instructor feedback will be presented via eLearning. Course evaluation will be based upon the following.

Points Required for Grade:

```
A  93 - 100
A- 90 - 92
B+ 87 - 89
B  83 - 86
B- 80 - 82
C+ 77 - 79
C  73 - 76
C- 70 - 72
D+ 67 - 69
D  63 - 66
D- 60 - 62
F  Below 60 is failing
```

Assignment Percentage Values:

- Assignment 1: 10 percent of final grade
- Assignment 2: 10 percent of final grade
- Assignment 3: 10 percent of final grade
- Assignment 4: 10 percent of final grade
- Assignment 5: 25 percent of final grade
- Assignment 6: 35 percent of final grade

Course Schedule:

Descriptions and timelines are subject to change at the discretion of the instructor

Class 01: Introductions, Maya review, Simple Hierarchical Structures, Basic Animation
Class 02: Constraints, Indirect Animation, Non-linear Deformers, Motion Path Animation, Joints
Class 03: Constraints, Connections, Set Driven Keys
Class 04: Review Indirect Animation Techniques, Controls, Prop Rigging
Class 05: Joints, Control Structures, Kinematics, IK
Class 06: Python and Controls
Class 07: Reverse Foot and Controls
Class 08: Spline IK and Simple Binding, Model Assessment for Rigging
Class 09: Skin Weighting and Blend Shapes
Class 10: Blend Shapes, Pose Space Deformers, and Delta Mush
Class 11: Intro to GUIs
Class 12: Rigging for Games
Class 13: Cinematics
Class 14: Review
Class 15: Presentations

Class Attendance:

Though not required, regular class participation is expected regardless of course modality. Students who fail to participate in class regularly are inviting scholastic difficulty. If you do not attend class, you are still responsible for the

material covered in class. Online videos are available each week which cover important topics and must be watched by students unable to attend in person.

Class Participation and Classroom Citizenship:

Regular class participation is expected. Students who fail to participate in class regularly are inviting scholastic difficulty. Class participation is documented by faculty. Successful participation is defined as consistently adhering to University requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Class Recordings

Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

The instructor may record meetings of this course. These recordings will be made available to all students registered for this class if the intent is to supplement the classroom experience. If the instructor or a UTD school/department/office plans any other uses for the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law.

Late Assignments:

Adherence to deadlines is expected. It is the student's individual responsibility to keep track of the goals and deadlines and to present the work to the class and instructor on the specified dates. It is strongly suggested that you complete and turn in assignments well in advance of the due date. Late assignments lose 10 percent of the available points deducted *for each day late*. This penalty is applied if any part of the assignment is late. The final assignment will not be accepted late.

Technical Requirements

In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements on the Getting Started with eLearning webpage.

Course Access and Navigation

This course can be accessed using your UT Dallas NetID account on the eLearning website.

Please see the course access and navigation section of the Getting Started with eLearning webpage for more information.

To become familiar with the eLearning tool, please see the Student eLearning Tutorials webpage.

UT Dallas provides eLearning technical support 24 hours a day, 7 days a week. The eLearning Support Center includes a toll-free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service.

Communication

This course utilizes online tools for interaction and communication. Some external communication tools such as regular email and a web conferencing tool may also be used during the semester. For more details, please visit the Student eLearning Tutorials webpage for video demonstrations on eLearning tools.

Student emails and discussion board messages will be answered within 3 working days under normal circumstances.

Distance Learning Student Resources

Online students have access to resources including the McDermott Library, Academic Advising, The Office of Student AccessAbility, and many others. Please see the eLearning Current Students webpage for more information.

Server Unavailability or Other Technical Difficulties

The University is committed to providing a reliable learning management system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and also contact the online eLearning Help Desk. The instructor and the eLearning Help Desk will work with the student to resolve any issues at the earliest possible time.

Academic Support Resources

The information contained in the following link lists the University's academic support resources for all students. Please go to Academic Support Resources webpage for these policies.

Course Technical Platform and Software Worksheet

ATEC lab computers will be available via remote connection from your personal computer. These are timed connections that allow you to remotely connect to and use the ATEC Lab computers. More information on Remote Connection setup and procedures can be found on https://atecio.utdallas.edu. While remote connection is available, your experience will be more streamlined if you have a personal computer capable of running the software used in the course.

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please review the catalog sections regarding the credit/no credit or pass/fail grading option and withdrawal from class. Please go to http://go.utdallas.edu/syllabus-policies for these policies