

School of Communications

Course: ANIM 3200 Intermediate 3D Animation

Term:

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Course Description:

This class continues the subject matter introduced in ANIM 2030. Students will be exposed to the more advanced tools and techniques used in 3D animation production for Film, Video, and Games.

Prerequisites: ANIM 2030

Course Learning Outcomes:

Each student should leave this course equipped with the improved knowledge and experience in 3D animation production.

Assessment

- Technical skills will be assessed on quality of exercises
- Creative skills will be assessed on quality of productions
- Design skills will be assessed on quality of aesthetics
- Theory skills will be assessed by exam
- Writing skills will be assessed by quality of criticism or story
- Critical thinking skills will be assessed by quality of participation

Textbooks:

Required:

Introducing Maya 2008 by Dariush Derakhshani
Maya Secrets of the Pros by John Kundert-Gibbs &
Dariush Derakhshani

Additional reference books (not required):

Maya at a Glance - A very quick and easy introductory reference guide to the tools in Maya.

The Art of Maya: An Introduction to 3D Computer Graphics - a great overview of all of the professional applications of Maya

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with an introduction to all of the concepts in 3D.

ABOUT THE COURSE:

Tools and Techniques:

Maya is the industry standard software package for film and games. Some people have called it complex, but I believe "robust" is a more useful way to understand it. Maya is a very broad program with a robust set of tools for all different areas of 3D work: modeling, rendering, animation, simulation, effects, etc. Further, its API about as open as a \$6000 program can be. With the right knowledge and you can completely re-write it to do your bidding. This flexibility has made Maya an industry standard application since its first version.

Rather than thinking of Maya as a software program, it is practical to think of Maya as an animator's tool box. Your objective is to create art work with them. Your skills should ultimately transcend the software package you use. In art and production settings you may be a sculptor, a painter, a stopmotion animator, a photographer, a camera operator, a director, a lighting specialist, a special effects artist - or you may be two or three of these things. At all time you will be a production manager. Developing your personal organizational skills will be a constant theme throughout the course. The point is that each one of these things can represent a distinct career path. In 3D it is no different.

Intermediate 3D Animation:

Intermediate 3D Animation must, by nature, be focused a bit more on the tools than the techniques of 3D animation. However, throughout the course, it should be remembered that we are learning how to use these tools to create ART. Real-world production standards will be implemented. Projects will be executed in the context of a production pipeline, integrating the student's design, composition, and organizational skills. The gamut of 3D animation assignments will be explored, giving the student a basis for prudent choices about their career path.

Schedule:

Week One:

Introduction to class standards and practices

Textbook Assignment:

Build a Polygon / SubD character head.

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Week Two:

Textbook Assignment:
The Character Pipeline

Week Three:

Textbook Assignment:
Non-Photorealistic Rendering

Week Four:

Textbook Assignment:
Advanced Rendering Techniques

Week Five:

Textbook Assignment:
Hair Systems

Week Six:

Textbook Assignment:
Dynamics

Week Seven:

Textbook Assignment:
Dynamics (cont.)

Week Eight:

Textbook Assignment:
Maya Cloth

Week Nine:

Textbook Assessment:
Camera Techniques

Week Ten:

Paint Effects

Weeks Eleven through Sixteen:

Personal projects production and mentoring.

****ONGOING ASSIGNMENT****

Students are required to keep a "3D sketchbook" whereby they keep examples of their assignments in progress and projects they pursue independently of the class subject matter. Students are encouraged to investigate the tools and techniques available to them through online searches and tutorials.

The sketchbook will be graded on artistic and technical merit. By challenging yourself, you can expect to do well. Pursuing simple,

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uninspired projects is discouraged.

The types of projects you can attempt include the following:

Modeling; Lighting and Rendering; Animation; Special Effects. If you find yourself particularly interested in modeling, I would suggest you make all of your projects as such.

Useful Online Resources:

Industry Pages:

awn.com, cgsociety.com, 3dworld.com, gamedev.net

Tutorials, Free Models, Scripts, etc:

creativecrash.com/maya/

Discussion Forums

cgtalk.com

Textures

cgtextures.com

Sell Models

Turbosquid.com

Attendance

This class, for any animation major pursuing a career in 3D, is one of the most critical courses in your entire curriculum. It is here that you will begin to develop essential skills that will help you thrive in the industry. Students are expected to attend class every week. If you know you will be missing a class, you must notify the instructor by e-mail at least 24 hours prior to your absence. Unless it is a case of family or medical emergency, no notification or notification the day of class will be counted as an unexcused absence and your grade will be reduced accordingly.

You are allowed 3 excused absences throughout the semester.

Anything after that will be counted as an unexcused absence.

1st Unexcused Absence = half a letter grade. (ex. A to A-)

Subsequent unexcused absences = full letter grade. (ex. A to B)

Responsibility

You are responsible for your work. Each semester I hear countless stories of lost drives, crashed computers, and dogs eating homework. It is impossible and unfair to discern whether or not these claims are legitimate. If you lose your thumb-drive, hard-drive, have your computer crash or anything else I can not promise any form of lenience. Unless under special circumstances, lost work will be treated as unsubmitted work. PLEASE back your work up in more than one place to avoid having your hard work go ungraded.

Assignments - Grading

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University Grading Standards:

The Undergraduate Catalog provides these guidelines and grading options:

A, A- Superior work in the opinion of the instructor

B+, B, B- Good work in the opinion of the instructor

C+, C, C- Satisfactory work in the opinion of the instructor

D+, D Passing, but less than satisfactory work in the opinion of the instructor

I Incomplete work in the opinion of the instructor. If an Incomplete grade is submitted by the instructor, the student and the instructor must have an agreed upon deadline for completion of the required work.

ZF An incomplete which was not completed within one year of the end of the course. All Incompletes should be completed within a much shorter period of time before the automatic ZF is entered on the student's transcript. This grade of F cannot be undone.

F Unsatisfactory work in the opinion of the instructor

W Withdrawal from the course

HOW ASSIGNMENTS WILL BE GRADED IN THIS CLASS:

Assignments are graded as objectively as possible and are based almost entirely on whether or not the assignment was completed as assigned.

You are, however, entering an artistic and technical career so a small portion of each assignment is based on the quality of your work.

There are a total of 100 grade points available in this class, 65 from assignments, 25 from sketches, and 10 from class participation and preparedness.

Each textbook assignment is worth 5 points for a total of 50 points. The personal project assignment is worth 15 points.

A = 80-100

B = 60-80

C = 40-59

D = 20-39

F = 0-19

University Policy Statements:

This course is governed by the University's policies, as published in the University catalog.

Academic Honesty:

The University is committed to high standards of academic honesty. Students will be held responsible for violations of these standards.

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Please refer to the university catalog for a definition of academic dishonesty and potential associated disciplinary actions.

Drops and Withdrawals:

Please be aware that the Drop/Add and Withdrawal dates are listed each semester on the University website, in the University catalog and in the Course Description book. If the course is dropped within the Drop/Add period, no notation of the course will appear on the student's transcript. Withdrawals take place after the published Drop date and a "W" in the course will appear on the student's transcript.

Special Services:

If you have registered as a student with a documented disability and are entitled to classroom or testing accommodations, please inform the instructor at the beginning of the course of the accommodations you will require in this course so that these can be provided.

Disturbances:

Since every student is entitled to full participation in class without interruption, disruption of class by inconsiderate behavior is not acceptable. Students are expected to treat the instructor and fellow students with dignity and respect, especially in cases where diversity of opinions arise.

Student Assignments Retained:

Some random student assignments or projects will be retained by the School of Communications for the purpose of academic assessment as it relates to student learning outcomes. In every such case, the student's name and all identifying information about the student will be removed from the assignment or project.

Contact hours for this course:

It is essential that all classes meet for the full instructional time as scheduled. A class cannot be shortened in length without rescheduling and/or make up activities.