

MISSOURI WESTERN STATE UNIVERSITY

SCHOOL OF LIBERAL ARTS AND SCIENCES

DEPARTMENT OF COMPUTER SCIENCE, MATHEMATICS, AND PHYSICS
Undergraduate Program

COURSE NUMBER: CSC 487
COURSE NAME: DIGITAL ANIMATION AND PRODUCTION

COURSE DESCRIPTION:

This class will concentrate on the methods used to build digital animated characters. Subjects will include character design and development, animation of characters, lighting, camera shots, sound and production editing.

PREREQUISITES:

Junior standing and declared Computer Information Systems, Computer Science, or Communication Studies and Theatre major.

REQUIRED TEXTS:

These books are expensive and students are expected to have them for this course. Exercise all outlets (both book stores and internet resources) to find them. **STUDENTS ARE EXPECTED TO HAVE THE GMAX BOOK BY THE SECOND CLASS PERIOD.**

REQUIRED HARDWARE:

A functioning laptop capable of running gMax and 3DS Max is required for this class. Students are expected to bring the laptop with them to each class period for working on the “tutorials” and in-class projects. Homework will be conducted on this laptop and students will be expected to display their homework in class. This laptop must be registered to the MWSU network. Auto Disk (creators of Gmax and 3DS Max) is very sensitive to non-student use of their “student software”. If you put 3DS Max on a personal computer (that has not been on the MWSU network), they will require you to prove that it is a student computer or they will charge you a \$4k fee for the license. Neither the gmax nor the 3DS Max code will be loaded on MWSU network; it is too difficult to get the IT department to sustain these packages.

OBJECTIVES:

- Students will demonstrate understanding of the following principles and techniques:
- Imaging Concepts and Terminology
- Motion aesthetics, Duration,
- Pacing/Tempo, Sequence, The Narrative/Storyline, Temporal Relationship
- Application of software for still image/time based media and animation

- Project Development

TOPICS COVERED:

- An introduction to historical references, background, and contemporary concepts of animation
- Storyboarding
- Stop motion animation
- Digital animation methods
- Framing & Composition
- Basic Lighting
- Professional Production Techniques (sizing for output, video and audio capture, photo import and animation of still images)
- Rendering