COURSE DESCRIPTION

Prerequisites: NONE

Course Description: Mathematical elements and algorithms involved in basic animation. Includes generating graphics, viewing 3D environments such as visible line detection and 3D surfaces, image processing techniques, and special effects.

We will utilize 3D Studio Max to create Lo-Poly models. Lecture portions of the course will focus on 3D animation in the current and future gaming markets. Lab will be geared toward 3D Lo-Poly Animation Creation. Upon completion of the course, students will understand concepts, tools, and have a basic knowledge 3D Max and creating Lo-Poly models. Equivalent animation software may be used in place of 3D Studio Max.

This is a 4 credit hour course. (3 lec., 4 lab.)

WECM END-OF-COURSE OUTCOMES: Develop programs that apply the basic character animation techniques, build and pose animated characters, and implement proper timing within animations.

STUDENT LEARNING OUTCOMES:
Upon successful completion of Game 1409, students will be able to use 3D Max or equivalent software to:

- Create a 3D object with 4 sided polygons
- Apply a surface material to a 3D object
- Add a 3D object to a game engine, compile the game, and play the game
- Build a 3D object according to the instructor’s specifications
- Apply critical thinking when solving problems and providing solutions

COURSE MATERIALS

Textbook: Text Material provided from the Internet and other sources

Material: A minimum of two (2) CD’s or
A minimum of 1GB USB Flash drive
Spiral Notebook
Ink Pen

A student of this institution (El Centro College) is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.
MAJOR COURSE REQUIREMENTS
Students will participate in Hands on instruction, Lecture and Lab activities addressing major topics covered in this course.

Students will produce Lab Assignments for the following topics:
   Toolbar Menus
   2D and 3D Objects
   3D editing
   Object Properties
   Biped
   Animation
   Poly Modeling
   Rendering Basics
   Graphic integration into 3D game engine

Assignments and/or projects produced individually, in pairs, or in small groups will demonstrate an understanding of Introduction to Animation Programming. Concepts and knowledge will also be evaluated through exams.

SUBJECT MATTER
Topics covered in the lecture portion of the course include:
   Functional uses of 3D Animation
   Basic components of 3D Max
   Work Space
   Toolbar Menus
   Objects
   Storyboarding
   Key Frames
   Object Properties
   Biped
   Animation
   Game Integration
   Rendering

INSTITUTIONAL POLICIES
All El Centro students are responsible for knowing and adhering to the following institutional and course-related policies:
   ● [www.elcentrocollege.edu/syllabipolicies](http://www.elcentrocollege.edu/syllabipolicies)
   ● Course-related Institutional Policies

DISCLAIMER
The provisions contained in this syllabus do not constitute a contract between the student and El Centro College. These provisions may be changed at the discretion of the Coordinator/Instructor. When necessary, appropriate notice of such changes will be given to the student. The instructor-of-record may provide additional information to enhance the course to meet the needs of the enrolled students, provided that the enhancements do not conflict with the official course syllabus.