COURSE # AND TITLE: **DMAD 241 3D Design and Animation**

CATALOG DESCRIPTION:
This hands-on introductory course focuses on the process required to create 3D graphics and animation. Students will learn concepts of working in 3D space, modeling, image maps and lighting. Animation techniques include working with keyframes and creating jointed hierarchies. Projects will be optimized for web and video delivery.

Semester Offered: Fall
Prerequisites: DMAD 110, ART 151, COME 120, PHOT 150 or PHOT 160, MATH 115 or permission of Instructor
Co-requisite:

Common Student Learning Outcomes	
Upon successful completion of San Juan College programs and degrees, the student will....	
Learn	*Students will actively and independently acquire, apply and adapt skills and knowledge to develop expertise and a broader understanding of the world as lifelong learners.*
Think	*Students will think analytically and creatively to explore ideas, make connections, draw conclusions, and solve problems.*
Communicate	*Students will exchange ideas and information with clarity and originality in multiple contexts.*
Integrate	*Students will demonstrate proficiency in the use of technologies in the broadest sense related to their field of study.*
Act	*Students will act purposefully, reflectively, and respectfully in diverse and complex environments.*

GENERAL LEARNING OBJECTIVES

Major learning objectives for this course include:

1. Introduce the core concepts of 3D graphics.
2. Introduce the core concepts of 3D animation.
3. Explore distribution techniques for 3D animation.

SPECIFIC LEARNING OUTCOMES
Upon successful completion of the course, the student will be able to …

1. Introduce the core concepts of 3D graphics.
        a. Define the anatomy of 3D space.

b. Explain how textures and image maps are applied to 3D images.
        c. Discuss the rendering process of animations and introduce methods to improve
           workflow.

2. Introduce the core concepts of 3D animation.
        a. Examine how 3D animation differs from traditional 2D animation.
        b. Adapt techniques from film, photography, and 2D animation in creating 3D projects.
        c. Explain keyframes, timelines, and jointed hierarchies and their relationship in creating
           3D animations.

3. Explore distribution techniques for 3D animation.
        a. Define VRML and examine other methods of delivering 3D works on the world wide
           web.
        b. Identify challenges in distributing 3D works in an online environment.
        c. Integrate 3D animation into video works.

   Syllabus developed by __Luke Renner__ Date: ___08/15/08_____

   Syllabus adopted by _____   Date: _____

   **A current syllabus must be on file in the dean's office for every course being taught
   during a given semester.**