

NEW COURSE PROPOSAL

PROGRAM AREA: **ART**

1. Catalog Description of the Course. *[Include the course prefix, number, full title, and units. Provide a course narrative including prerequisites and corequisites. If any of the following apply, include in the description: Repeatability (May be repeated to a maximum of ___ units); time distribution (Lecture ___ hours, laboratory ___ hours); non-traditional grading system (Graded CR/NC, ABC/NC). Follow accepted catalog format.]*

ART 326 DIGITAL MEDIA ART: 3D COMPUTER ANIMATION (3-3)

Six hours laboratory per week.

Prerequisite: ART 206, ART 312

Studio projects explore applications of digital technologies utilized in the production of 3D Computer Animation. Assignments involve character design, wire frame modeling, texture mapping, lighting techniques, motion paths and animation techniques. Class projects result in the creation of CGI and 3D animation presented on video or DVD.

2. Mode of Instruction.

	Units	Hours per Unit	Benchmark Enrollment
Lecture	_____	_____	_____
Seminar	_____	_____	_____
Laboratory	___3___	___2___	___20___
Activity	_____	_____	_____

3. Justification and Learning Objectives for the Course. (Indicate whether required or elective, and whether it meets University Writing, and/or Language requirements) *[Use as much space as necessary]*

Justification

This course fulfills three (of eighteen) units of required upper division studio art course for the Art Major in the studio art option.

This course is designed for the student seeking to expand their knowledge and working abilities into the realm of 3D computer animation. This process has become an integral component of motion picture visual effects production. Numerous creative and professional opportunities await the artist proficient in this arena of digital art technology. This course advances the mission of the CSUCI Art Program and the University to remain on the forefront of technological innovation. It also serves to prepare CSUCI students to succeed as digital media artist working in scientific, medical or entertainment fields.

Learning Objectives

Through studio projects involving technical demonstrations, artistic exercises, class discussions, field trips to museums and galleries, project presentations and class critiques, students will:

- Develop projects that explore the use of traditional artistic methods and digital art technology.
- Articulate, verbally and in written form, their conscious intentions and coherent aesthetics in relationship to projects they produce.

- Develop a personal artistic/symbolic language expressed through the artistic process.
- Demonstrate proficiency working with emerging digital technology in the development of sophisticated 3D animation projects.
- Produce group projects involving collaborative team assignments.
- Demonstrate methods and processes utilized in refinement of artistic ideas and technical issues.
- Participate in the critical evaluation process of peer projects.
- Develop artistic skills leading toward professional practice in the arts.
- Produce individual works of art.
- Develop a DVD demo reel portfolio of work created in the course.

4. Is this a General Education Course YES NO
 If Yes, indicate GE category:

A (English Language, Communication, Critical Thinking)	
B (Mathematics & Sciences)	
C (Fine Arts, Literature, Languages & Cultures)	
D (Social Perspectives)	
E (Human Psychological and Physiological Perspectives)	

5. Course Content in Outline Form. *[Be as brief as possible, but use as much space as necessary]*

ART 326 Digital Media Art: 3D Computer Animation: (3-3)

I. Storyboarding / Character Studies

- A. Detailed (hand drawn) character studies
- B. Key frames
- C. Scenes
- D. Backgrounds
- E. POV (point of view)

II. 3D Wire frame Modeling

- A. CG detailed wire frame
- B. Creation of subsequent 3D objects
- C. Virtual environments

III. Texture Maps

- A. Digitally paint texture maps
- B. Apply to modeled surfaces

IV. Lighting

- A. Experiment with scene lighting
- B. Placement of lights within 3D environment
- C. Image contrast

- D. Hue
- E. Intensity
- F. Atmosphere

V. Digital Animation - Motion and Camera Movements

- A. Plot and test CG animated movements
- B. Characters,
- C. Objects
- D. Cameras in virtual space

VI. Background Plates

- A. Digitally paint plates
- B. Terrain imagery

VII. 3D Rendering

- A. Digital rendering of CG characters
- B. Animated sequences.

VIII. Compositing and Editing

- A. Import imagery into compositing program
- B. CG animation
- C. Background plates
- D. Effects

IX. Audio Production

- A. Import audio and sound effects
- B. Sync with visual imagery.

X. Final Rendering and output

- A. Render final edited animation in QuickTime® digital format.
- B. Digital resolution formats

IX. Presentation and class critique of projects.

- A. Analog video
- B. CD Rom
- C. DVD
- D. Internet: streaming video

Sample projects

1. Introduction to 3D modeling and Texture Mapping

Modeling exercises will include basic digital 3D modeling and texture mapping of a series of geometric and amorphous objects.

2. The Virtual Character, Objects, and 3D World

Based upon an assigned theme / story concept, students will create 3D characters, objects, and a virtual world. Creation of these elements will include digital modeling, texture mapping, and lighting techniques. The project will begin with a series of (hand drawn) studies that will lead to the development of animated characters, and related objects within a virtual 3D world.

3. The 3D Animation

The setting for the animation will take place within a 3D world that consists of terrain, surface textures and background imagery (plates). The objects/characters will face brief, yet challenging (animated) events based around a specific subject or theme (to be decided upon in consultation with the instructor) They will either triumph or fail in overcoming obstacles within the world you have created. This project will begin with a sequence of (hand- drawn) storyboards and culminate in the creation of a completed computer animation. (TRT: approx. 45 seconds to 1 minute).

6. References. [Provide 3 - 5 references on which this course is based and/or support it.]

Kerlow, Issac. *The Art of 3D computer Animation and Imaging*, Canada: Wiley & Sons, 2001
Foley, Dan. *Animation and 3D Modeling on the Mac*, Berkeley: Peachpit Press, 1997
Ratner, Peter. *3-D Human Modeling and Animation*, Canada: Wiley & Sons, 2000
Szabo, Michelle. *Learn 3D Animation on the Macintosh*,. New York: Wiley & Sons, 1996.
Wells, Paul. *Understanding Animation*, London, Routledge, 2001

7. List Faculty Qualified to Teach This Course.

- Jack Reilly, MFA, Professor of Fine Arts

8. Frequency.

a. Projected semesters to be offered: Fall x Spring x Summer

9. New Resources Required.

- a. Computer (data processing), audio visual, broadcasting needs, other equipment
- b. Library needs
- c. Facility/space needs

• No new resources will be required to offer this course. This course will be offered in the CSUCI Art Complex multimedia computer lab equipped with the latest digital art software. Existing equipment and facilities are currently adequate to support the implementation of this course.

10. Consultation.

Attach consultation sheet from all program areas, Library, and others (if necessary)

11. If this new course will alter any degree, credential, certificate, or minor in your program, attach a program modification.

Jack Reilly, Professor of Art

12-8-2002

Proposer of Course

Date