



SACRAMENTO
STATE

Course Change Proposal Form A



Academic Group (College): Engineering & Computer Science	Academic Organization (Department): Computer Science	Date: November 27, 2006
Type of Course Proposal: New <input checked="" type="checkbox"/> Change <input type="checkbox"/> Deletion <input type="checkbox"/>	Department Chair: Du Zhang	Submitted by: John Clevenger
Does this course fulfill a requirement for single-subject or multiple subject credential students? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	For Catalog Copy: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> CCE: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Semester Effective: Fall <input type="checkbox"/> Spring <input checked="" type="checkbox"/> , 2007 <input type="checkbox"/>

This course replaces experimental course Subject Area (prefix) and Catalog Number (course number):	
This Catalog Number (course number) is being replaced:	

Change from:

Subject Area (prefix) & Catalog No. (course no.):	Title:	Units:
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Change to:

Subject Area & Catalog No: CSC 126	Title: 3D Computer Modeling	Units: 3
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JUSTIFICATION:

Computer gaming is one of the fastest-growing segments of the computer field, and universities worldwide are rapidly developing curricula in game design, development, and implementation. The basic concepts of 3D Computer Modeling have been taught for a number of years as components of CSC 155 (Advanced Computer Graphics) and CSC 165 (Computer Game Design and Implementation, formerly CSC 196O). However, neither CSC 155 nor CSC 165 is able to delve into 3D Modeling in detail; currently no such detailed course exists on our campus. The proposed course will fill that gap and is envisioned as one of a series of possible new courses in the computer modeling, animation, and game design area. The course also provides exposure to the interdisciplinary components of the field. The Art Department has been working to develop a program focused on the use of digital technology in art, and 3D Computer Modeling is an interdisciplinary topic of significant interest in both Computer Science and Art. We have been collaborating with Art on the planned classroom activities, and we propose that CSC 126 be cross-listed with the newly proposed Art 142. This will not only increase the likelihood that Computer Science students interested in game development will gain exposure to important art components, but facilitate the eventual integration of the course into an interdisciplinary program.

NEW COURSE DESCRIPTION: (Not to exceed 80 words, and language should conform to catalog copy. See <http://www.csus.edu/acaf/univmanual/crspsl.htm> - Guidelines for Catalog Course Description)

Techniques and processes to create 3D computer models and environments. Exercises, assignments and projects designed to build skill levels with 3D computer modeling tools. Demonstrations and workshops in the use of 3D computer modeling software. Critiques, discussion and presentations to develop students' conceptual grasp of 3D computer modeling and virtual reality environments. Example applications in art/new media and computer gaming.

Note:	
Prerequisite: CSC 10 or ART 97 or equivalent.	
Corequisite:	
CAN (California Articulation Number):	
Graded: Letter <input checked="" type="checkbox"/> Credit/No Credit <input type="checkbox"/>	Instructor Approval Required? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Course Classification (e.g., lecture, lab, seminar, discussion): Fine Arts/Science Activities 07	Title for SIS+/CMS (not more than 30 characters) 3D COMPUTER MODELING
Cross Listed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If yes, do they meet together and fulfill the same requirement, and what is the other course. Yes - ART 142 (primary listing)
How Many Times Can This Course be Taken for Credit? <input type="checkbox"/> Once <input checked="" type="checkbox"/> Twice <input type="checkbox"/>	
Can the course be taken for Credit more than once during the same term? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

FOR NEW COURSE PROPOSALS OR SUBSTANTIVE CHANGES ONLY:

Description of the Expected Learning Outcomes: Describe outcomes using the following format: "Students will be able to: 1), 2), etc."
See the example at <http://www.csus.edu/acaf/example.htm>

Upon completion of the course, students will have a thorough understanding of:

1. Common functions of 3D modeling tools
2. Composition of hierarchical computer models from lower-level primitives
3. Types of lighting and how they are applied to 3D computer models
4. Surface techniques (materials and shading) and how they are applied to 3D computer models

Upon completion of the course, students will have a basic understanding of:

1. Alternative rendering techniques (wireframe, facet, smooth shaded) for 3D computer models
2. Organic modeling techniques (physiques, expressions, emotion)

Upon completion of the course, students will have exposure to:

1. 3D animation and its connection with 3D modeling components
2. Alternatives for evaluating and critiquing 3D models

**Attach a list of the required/recommended course readings and activities [Note: it is understood that these are updated and modified as needed by the instructor(s).] This attachment should be forwarded only to your Dean's office, not Academic Affairs.

Assessment Strategies: A description of the assessment strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers) which will be used by the instructor to determine the extent to which students have achieved the learning outcomes noted above:

Students will complete laboratory projects and will present oral and written critiques of their own and others' work.

For whom is this course being developed?

Majors in the Dept Majors of other Depts Minors in the Dept General Education Other

Is this course required in a degree program (major, minor, graduate degree, certificate)? Yes No

If yes, identify program(s):

Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer facilities, faculty, etc.)? Yes No

If yes, attach a description of resources needed and verify that resources are available.

Indicate which department or programs will be affected by the proposed course (if any). Art Department (primary X-listing)

The Department Chair's signature below indicates that affected programs have been sent a copy of this proposal form.

Approvals: If proposed change, new course or deletion is approved, sign and date below. If not approved, forward without signing to the next reviewing authority, and attach an explanatory memorandum to the original copy.

Signatures:

	Date
Department Chair:	11/27/2006
College Dean or Associate Dean:	11/28/2006
CPSP (for school personnel courses ONLY)	
Associate Vice President and Dean for Academic Programs	

Distribution: Academic Affairs (original), Department Chair and College Dean. Dean's office to send original after approval to Academic Affairs, at mail zip 6016. An electronic copy must also be sent.