Reedley College Proposed Course Modification

Course # / Title ART 42 Computer Animation 3D

CHECK OFF SHEET

PRELIMINARY STEPS. Do before completing Course Modification Form.

(EAC	TH BOX SHOULD BE CHECKED AS COMPLETED BEFORE SUBMISSION.)					
$\overline{\mathbf{A}}$	1. Communicate with the Curriculum Chair regarding intent to modify an existing course outline (recommended, not required).					
✓	2. List term for implementation of modifications: [X] Fall2010 [] Spring [] Summer 3. Check one: Do not complete Fresno City College course alignment page if: X No similar course or program at FCC.					
	Course currently in common with FCC course or accepted in lieu of and changes will not affect status.					
	Complete Fresno City College course alignment page if: Course currently in common with FCC course or accepted in lieu of. Changes may affect status. Consult with counterparts at FCC and complete alignment page Course not in common or accepted in lieu of but may be with proposed changes consult with FCC counterparts					
$\overline{\checkmark}$	4. Changes sought in the following:					
	CSU General Education Code Yes No $\frac{X}{X}$ Transfer Baccalaureate List Yes No $\frac{X}{X}$					
V	If yes to either, schedule an appointment with the Articulation Officer 5. Changes sought in number of repeats for credit:					
	Yes No					
PRO	If yes, secure a Course Repetition form from the Curriculum Office. POSED COURSE MODIFICATION FORM					
	Appropriate sections of Course Outline of Record completed.					
FINA	AL steps (Do after completing Course Outline of Record)					
$\overline{\checkmark}$	1. <u>Signature Form</u> . Secure signatures of the Department Chair and the Associate Dean before submitting the completed course proposal to the Curriculum Office.					
	2. <u>Program Description</u> . Course modification will change an existing program which is or will be described in the college catalogue.					
	Yes X No					
	If yes, complete Program Description Form before submitting modification.					
$\overline{\mathbf{V}}$	3. Final Check. All items above have been completed and checked off before modification is submitted.					

Reedley College PROPOSED COURSE MODIFICATION

All changes and modifications in the official course outline must come to the Curriculum Committee. Though minor changes may seem obvious, even these need to come to committee for information and to update the official curriculum. Changes in programs or in several department offerings should be submitted together if possible so that the whole picture is clear.

OUTLINE. Please fill in current existing course number, title, and units for course to be modified.					
Department Fine Arts & Social Sciences	Course No. ART 42				
Course Title Computer Animation/3D	Units				
	Effective Date Fall 2010				
A. PROPOSED CHANGES. (Indicate below all proposed changes to be made in the course ou	ntline.)				
I. Cover Page 1. Course ID 2. Course Title 3. Units 4. Lecture/Lab Hours 5. Grading Basis 6. Entrance Skills: Basic Skills Prerequisites/Advisories 7. Subject Prerequisites/Corequisites/Advisories	 8. Classification (Degree applicable, Non-degree applicable, or Pre-collegiate Basic skills) 9. General Education Pattern, Graduation Requirement, and Major Category 10. General Education Pattern/Baccalaureate (CSU) 11. Repeatability 12. Catalog Description 				
Other pages					
II. Course Outcomes III. Course Objectives IV. Course Content Outline V. Approved Readings	VI. Methods of Grading X VII. Levels of Educational Materials Additional Pages (optional depending on course) Request for Repeatability/Limitation on Enrollment				

B. DESCRIPTION OF CHANGES AND MODIFICATIONS.

ITEM NO.	CHANGED FROM	CHANGED TO	REASON
II.	See outline. Changes are highlighted.	See outline.	Consolidation of Student Learning Outcomes.

(Additional sheets may be attached if necessary.)

C. EXPLANATIONS. If course modification results in changes in the program which will require use of the program description form, please give rationale.

Please attach the complete outline before modifications to this form. If only the first page of the outline is being modified, <u>also attach the new first page</u>. If other pages of the outline are being modified, please attach the complete new outline.

Reedley College

SIGNATURE FORM

Submission/Recommendation/Action

Course Department and Number: AF	RT 42	
Course Title: Computer Animation/S	3D Fall 2010 Effective Date:	
Submitted By: _ Janice Ledgerwood	Date	: 03/12/10
2. Reviewed by Department:Janice Ledgerv Departn Attach department recommendation. (opt	nent Chair's Signature	: 03/12/10
3. Received/Reviewed by Dean of Instruction:	Dean's Signature	:
4. Approved by Curriculum Committee on:	Date	
	Curriculum Committee Chair	Date
	Vice President of Instruction	Date
5. Reviewed by Articulation Officer:		Date:
CSU GE Code submitted for articulation:		

CREDIT COURSE OUTLINE

I. COVER PAGE

(1) Course ID: ART 42	(2) Course Title: Computer Animation/3D				(3) Units: 3.0
(4) Lecture / Lab Hours:			(8)Classification:		
Semester course Hours per week	Lec hrs:	2			
	Lab hrs:	4	Degree application	able:	X
Lab will generate	hour(s) per week out	tside work.	Non-degree ap	oplicable:	
Short-term course: Hours per course	Lec hrs:		Pre-collegiate	basic skills:	
	Lab hrs:			_	
Lab will generate	_ total hour(s) outside wo	ork.	(9)RC Fulfills AS/AA degree (area)	requirement:	
(5)Grading Basis:	Grading scale only		General education cates	gory:	
	CR/NC option	X	Major:	Art	
	CR/NC only				
(6)Basic Skills Prerequis	ites:		(10)CSU: Baccalaureate	:	х
			(11) Repeatable: (A course may three times)		3
Basic Skills Advisorie	s: L 125, ENGL126 and MA	ATH 101			
Eligiolity for Elvor	2 123, ENGET20 and MI	1111 101	For Office	e Use Only	
(7)Subject Prerequisites:			CATID: 131045.02	Org Code	e: 244010
ART 37A or ART 3	8		Tops Code: 1002.00	SAM Prio	ority: E
			VEA Code: N	Course L	HE: 5.0
Subject Corequisites	y:		Effective Date: Spring 2002	Replaces: (repeats)	: 131045.01
Subject Advisories:			CSU GE Code: F	Replaced	by:
(12)Catalog Description:				Date:	
This course is an introdu and 3D animations will b		mation and mo	odeling on the computer. Projects so	uch as creating 3	D still images
	03/0	08			

II. COURSE OUTCOMES:

(Specify the learning skills the student demonstrates through completing the course and link critical thinking skills to specific course content and objectives.)

Upon completion of this course, students will be able to:

- A. Create a portfolio of artwork demonstrating a basic level proficiency in 3D computer animation addressing issues of form and content.
- B. Demonstrate comprehension of the visual vocabulary of art through the creation of 3D computer generated artwork.
- C. Critique works of 3D computer animation.

III. COURSE OBJECTIVES:

(Specify major objectives in terms of the observable knowledge and/or skills to be attained.)

- 1. Develop a working knowledge of a 3D animation software program. A mastery of the following basic techniques will be addressed: 3D modeling, scene creation, animation, and rendering.
- 2. Complete a 3D animation semester project that includes using the above program skills and story boarding, research, generation of 3D images through the modeling process, animation of modeled figures, scene objects, camera angles and lighting.
- 3. Present 3D animation semester project to the class at the final critique
- 4. Create a personal artistic 3D and animation statement based on integration of formal and conceptual contemporary art issues.

IV. COURSE CONTENT OUTLINE:

- I. Introduction to 3D animation computer skill development
 - A. Creating a scene
 - 1. Creating objects
 - 2. Rotation of objects
 - 3. Scene objects
 - a. sky
 - b. floor
 - 4. Text placement ad positioning
 - B. Applying materials to the scene
 - 1. Scene objects
 - 2. Objects
 - 3. Text
 - C. Lighting
 - D. Rendering
 - E. Animation
 - 1. Key frame animation
 - 2. Time line animation
 - 3. Animating paths
 - 4. Animating lights
 - 5. Animating textures
 - 6. Animating a camera
 - F. Modeling
 - G. Inverse kinematics
 - H. Free form deformation
- II. Implementing, Modeling, Rendering and Animation Skills to Individual Project Development
 - A. Modeling and scene development for project
 - B. Rendering
 - C. Animation
 - D. Completion of individual project

V. APPROPRIATE READINGS

Reading assignments may include but are not limited to the following:

- 1. Text (sample):
 - Call, Anson. <u>Cinema 4D R10 Handbook</u>, Charles River Media, , ISBN 1584505222, 2007
 - Mitchell, Larry. C4D 9.5 Real-World Animation Production, Charles River Media, ISBN 1584504374, 2006
 - Powers, Anne. Cinema 4D, 2e: The Artist's Project Sourcebook, Focal Press, ISBN 024080953X, 2007
 - von Koenigsmarck, Arndt. Cinema 4D 10 Workshop, Focal Press, ISBN 024081195X, 2007

X	Global or international materials or concepts are appropriately included in this course
	Multicultural materials and concepts are appropriately included in this course.

If either line is checked, write a paragraph indicating specifically how global/international and/or multicultural materials and concepts relate to content outline and/or readings.

The multi-cultural world is examined through the language of animation and storytelling produced by various cultures and sub-cultures. The skills of the student to effectively produce a computer animation are fostered and developed in reference to a multi-cultural world.

VI. METHODS TO MEASURE STUDENT ACHIEVEMENT AND DETERMINE GRADES:

Students in this course will be graded in at least one of the following four categories. Please check those appropriate. A degree applicable course must have a minimum of one response in category A, B or C.

A. W	A. Writing Check either 1 or 2 below							
	1.	Substantial writing assignments are required. Check the appropriate boxes below and provide a written description in the space provided.						
	2.	Substantial writing assignments are NOT required. If this box is checked leave this section blank. For degree						
X		applicable courses you must complete category B and/or C.						
	a.	essay exam(s)	d.	written homework				
	b.	term or other papers(s)	e.	reading reports				
	c.	laboratory reports	f.	other (specify)				

Required assignments may include but are not limited to the following:

B. P	B. Problem Solving			
1. Computational or non-computational problem-solving demonstrations, including:				
X	a. exam(s)	d. laboratory reports		
X	b. quizzes	e. field work		
	c. homework problems	f. other (specify)		

Required assignments may include, but are not limited to the following:

- 1. Students will create 3D animation projects that include preparing and modeling figures, scene creation, scene objects, camera angles, lighting, and rendering.
- 2. Software navigational exams will be given which require students to achieve the completion of a short animation project by using the software without assistance. This ensures that students are able to apply necessary navigational trial-and-error process skills in solving step-by-step problems.
- 3. Written quizzes and tests are given.

C. Sk	sill demonstrations, including:		
X	a. class performance(s)		c. performance exam(s)
	b. field work	X	d. other (specify Internet Research

Required assignments may include, but are not limited to the following:

- 1. Demonstration of effective use of interactive compositional skills occur during daily lab practice with the manipulation of 3D animations.
- 2. Computer performance exams measure students skill mastery.
- 3. Group critique sessions offer students a model and practice of effective use of vocabulary in the analysis of animation principles.
- 4. Daily classroom assignments address skill development in 3D animation software use and basic computer concepts.

D. (Objective examinations, including:		
X	a. multiple choice	X	d. completion
X	b. true/false	X	e. other (specify) Computer exam*
X	c. matching items	*teste	d on ability to manipulate the 3D animation program using the computer

Description/Explanation: Based on the categories checked, it is the recommendation of the department that the instructor's grading methods fall within the following departmental guidelines; however, the final method of grading is still at the discretion of the individual instructor. The instructor's syllabus must reflect the criteria by which the student's grade has been determined. (A minimum of five (5) grades must be recorded on the final roster.)

If several methods to measure student achievement are used, indicate here the approximate weight or percentage each has in determining student final grades.

30% Quizzes and tests

40% Tutorials, projects, assignments

30% Final 3D animation project

Course ID: ART 42 Course Title: Computer Animation/3D

VII. EDUCATIONAL MATERIALS

For degree applicable courses, the adopted texts, as listed in the college bookstore, or instructor-prepared materials have been certified to contain college-level materials.

Validation Language Level (check where applicable):			
		Criteria	
		Yes	No
	ttbook	X	
Ref	erence materials	X	
Inst	ructor-prepared materials	X	
Aud	lio-visual materials	X	
Indicate	method of evaluation:		
X	Used readability formulae (grade level 10 or higher)		
X	Text is used in a college-level course		
	Used grading provided by publisher		
	Other: (please explain; relate to Skills Levels)		
Comput	tation Level (Eligible for MATH 101 level or higher where applicable)		
Conten	t		
Bre	adth of ideas covered clearly meets college-level learning objectives of this course	X	
Pre	sentation of content and/or exercises/projects:		
	Requires a variety of problem-solving strategies including inductive and deductive reasoning.	X	
	Requires independent thought and study	X	
	Applies transferring knowledge and skills appropriately and efficiently to new situations or problems.	X	
	Reading/Educational Materials	Λ	
1. Text	(sample):		
	son. Cinema 4D R10 Handbook, Charles River Media, , ISBN 1584505222, 2007		
	l, Larry. C4D 9.5 Real-World Animation Production, Charles River Media, ISBN 1584504374, 2006 Anne. Cinema 4D, 2e: The Artist's Project Sourcebook, Focal Press, ISBN 024080953X, 2007		
	enigsmarck, Arndt. Cinema 4D 10 Workshop, Focal Press, ISBN 024081195X, 2007		
Comme	ents:		
	This course requires special or additional library materials (list attached).		
X	This course requires special facilities: computer lab		

K1 42

Number

Title

Math Skills (eligibility for Math 101) 1. Ability to understand and calculate (as outcomes for Math 250) file sizes for use in scanning and printing. x Performing the four arithmetic operations on whole numbers, arithmetic fractions, and 2. Ability to relate measurements and decimal fractions. percentages to megabytes and pixels per Making the conversions from arithmetic inch. fractions to decimal fractions, from decimal fractions to percents, and then reversing the process. 3. Ability to calculate relative Applying the concepts listed above to proportions of various images to one proportions, percents, simple interest, another. markup and discount. Applying the operations of integers in solving simple equations. Converting between the metric and English measurement systems Reading Skills (eligibility for English 126) 1. Ability to comprehend the material in (as outcomes for English 262) college level tutorial text. x Using phonetic, structural, contextual, and 2. Ability to understand technical terms dictionary skills to attack and understand and their use. words. Applying word analysis skills to reading in context. 3. Ability to interpret written directions Using adequate basic functional vocabulary into visual applications. skills. Using textbook study skills and outlining skills. Using a full range of literal comprehension skills and basic analytical skills such as predicting, inferring, concluding, and evaluating. Writing Skills (eligibility for English 125) 1. Ability to write college level reports. (as outcomes for English 252) 2. Ability to express in writing x Writing complete English sentences and information learned from lectures and avoiding errors most of the time. tutorials. Using the conventions of English writing: capitalization, punctuation, spelling, etc. Using verbs correctly in present, past, 3. Ability to relate computer information future, and present perfect tenses, and using and terms into written form. the correct forms of common irregular verbs. x Expanding and developing basic sentence structure with appropriate modification. x Combining sentences using coordination, subordination, and phrases. Expressing the writer's ideas in short personal papers utilizing the writing process in their development.

Check the appropriate spaces.

- _ Eligibility for Math 101 is **advisory** for the target course.
- _____ Eligibility for English 126 is **advisory** for the target course.
 - Eligibility for English 125 is advisory for the target course.

If the reviewers determine that an advisory or advisories in Basic Skills are all that are necessary for success in the target course, stop here, provide the required signatures, and forward this form to the department chair, the appropriate associate dean, and the curriculum committee.

-- 1

Number

Title

CONTENT REVIEW FOR ALL COURSES IN ADDITION TO BASIC SKILLS COURSES

List in Column 1 at least three specific major concepts, skills, or kinds of knowledge that a student will learn in the pre- or corequisite or advisory course that are essential to the successful completion in the target course. In Column 2, state why the skill in Column 1 is essential in relation to the content listed in the course outline of the target course.

COLUMN 1: Concepts, Skills, Kinds of Knowledge	COLUMN 2: Specifically how this is necessary in the target course
(List each prerequisite or advisory separately here. If you need more space, attach a second page B. Be sure to explain each course in Column 2.)	1. Multimedia projects in ART 42 are of a more advanced nature and build upon principles taught in ART 37A.
Name of prerequisite or advisory course: ART 37A	2. New vocabulary and concepts introduced in ART 42 reinforce and develop further the foundational understanding of the 2D software program taught in ART 37A.
Concepts, skills, etc. (List these.)	boloware program caagne in inti 3/11.
 Introduction to the computer, knowledge and understanding of navigating, file management (resolution and file size), saving 	3. Multimedia computer graphics involved the integration and proper use of bitmap or vector images.
2. Discuss basic concepts of computer imaging: A. Visual elements and principles of design B. Applications of computer technology	4. Multimedia graphics composition involves integration of two-dimensional images, planning overall presentation and ability to expand two-dimensional images into animation and non-linear interactive productions.
3. Demonstrate an understanding of bitmap and vector images	and non linear interactive productions.
4. Demonstrate understanding of image composition as a process involving idea (planning and technique), skill and evaluation	

If the courses listed in Column 1 are advisory, complete the information below and do not go on to the next page.

Advisory course(s):		
Content review completed by	Janice Ledgerwood	03/12/10
V-P's Signature		Date

Every prerequisite or corequisite requires content review plus justification of *at least one* of the **seven** kinds below. Prerequisite courses in communication and math outside of their disciplines require justification through statistical evidence. **Kinds of justification that may establish a prerequisite are listed below.**

The target co	Number	Computer Animati	on/3D Titl	e	
The proposed	requisite course	ART 37A	Computerized Vi	sual Art	
	_	Number		Title	
Check one of	the following that a	pply. Documentat	tion may be attacl	ned.	
1	The prerequisite/corequisite is required by law or government regulations. Explain or cite regulation numbers:				
2	The health or safety of the students in this course requires the prerequisite. Justification: Indicate how this is so.				
3	The safety or equipment required for the successful suc	ccessful or safe	completion of thi	he prerequisite course are s course.	
4	The prerequisite is required in order for the course to be accepted for transfer to the UC or CSU systems. Justification: Indicate how this is so.				
5	Significant statistical evidence indicates that the absence of the prerequisite course is related to unsatisfactory performance in the target course. Justification: Cite the statistical evidence from the research.				
6	The prerequisite condiscipline.	urse is part of a	sequence of cour	ses within or across a	
7x	Three CSU/UC campuse course equivalent to			ite or corequisite for a	
CS	U/UC CAMPUS	COURSE	DEPT/NO.	PRE/COREQUISITE NO.	
Chico		CDES 270A Intro Design and Deve		Basic computer literacy	
Cal Poly		ART 483 Video a	nd Multimedia	ART 323 Intro to Digital Image- Making	
Cal State Lo	ong Beach	ART 406B Advanc Imagery for the	_	ART 406A Digital Imagery for the ARTS	
Explanation (or justification: (A	ttach information	n if necessary.)		
The x pre	erequisite co	orequisite ART	37A Com	nputerized Visual Art Title	
has been just	as been justified for ART 42 Computer Animation/3D Target course Number Title				
Discipline fa	aculty members: Dent,	King, Ledgerwood	d, Masterson, Nort	ton.	
Department Ch	nair: Janice Ledge:	rwood	Dean:	Tom West	
Approved by (Curriculum Committee:				
			Curriculum Chai:	r Date	
		Vice	President of Inst	ruction Date	

essential in relation to the content listed in the course outline of the target course.

Number

Title

CONTENT REVIEW FOR ALL COURSES IN ADDITION TO BASIC SKILLS COURSES

List in Column 1 at least three specific major concepts, skills, or kinds of knowledge that a student will learn in the pre- or corequisite or advisory course that are essential to the successful completion in the target course. In Column 2, state why the skill in Column 1 is

COLUMN 1: Concepts, Skills, Kinds of Knowledge COLUMN 2: Specifically how this is necessary in the target course 1. Multimedia projects in ART 42 are of a more (List each prerequisite or advisory separately advanced nature and build upon principles here. If you need more space, attach a second taught in ART 38 page B. Be sure to explain each course in Column 2.) 2. New vocabulary and concepts introduced in Name of prerequisite or advisory course: ART 42 reinforce and develop further the foundational understanding of the 2D software program taught in ART 38 Concepts, skills, etc. (List these.) 3. Multimedia computer graphics involved the integration and proper use of bitmap or 1. Introduction to the computer, knowledge and vector images. understanding of navigating, file management (resolution and file size), saving 4. Multimedia graphics composition involves 2. Discuss basic concepts of computer imaging: integration of two-dimensional images, A. Visual elements and principles of design planning overall presentation and ability to B. Applications of computer technology expand two-dimensional images into animation and non-linear interactive productions. 3. Demonstrate an understanding of bitmap and vector images 4. Demonstrate understanding of image composition as a process involving idea (planning and technique), skill and evaluation If the courses listed in Column 1 are advisory, complete the information below and do not go on to the next page.

Advisory course(s): 03/12/10 Content review completed by Janice Ledgerwood Date V-P's Signature Date Every prerequisite or corequisite requires content review plus justification of *at least one* of the **seven** kinds below. Prerequisite courses in communication and math outside of their disciplines require justification through statistical evidence. Kinds of justification that may establish a prerequisite are listed below.

The target co	target course ART 42 Computer Animation/3D Number Title				
The proposed	requisite course	ART 38 Number	Computer Digita	1 Imaging Title	
Check one of	the following that a		tion may be attacl	hed.	
1	The prerequisite/corequisite is required by law or government regulations. Explain or cite regulation numbers:				
2	The health or safety of the students in this course requires the prerequisite. Justification: Indicate how this is so.				
3	The safety or equipment required for the successful suc	ccessful or safe o	completion of thi	he prerequisite course are s course.	
4	The prerequisite is required in order for the course to be accepted for transfer to the UC or CSU systems. Justification: Indicate how this is so.				
5	Significant statistical evidence indicates that the absence of the prerequisite course is related to unsatisfactory performance in the target course. Justification: Cite the statistical evidence from the research.				
6	The prerequisite cou	urse is part of a	sequence of cour	ses within or across a	
7x	Three CSU/UC campuse course equivalent to			ite or corequisite for a	
CS	U/UC CAMPUS	COURSE	DEPT/NO.	PRE/COREQUISITE NO.	
Chico		CDES 270A Intro		Basic computer literacy	
Cal Poly		ART 483 Video an	nd Multimedia	ART 323 Intro to Digital Image- Making	
Cal State Lo	ong Beach	ART 406B Advance Imagery for the	_	ART 406A Digital Imagery for the ARTS	
Explanation (or justification: (A	attach information	if necessary.)		
The x pre	erequisite co	orequisite ART 3	38 Com Number	mputerized Visual Art Title	
has been just	as been justified for ART 42 Computer Animation/3D Target course Number Title				
Discipline fa	aculty members: Dent,	King, Ledgerwood	l, Masterson, Nort	ton.	
Department Ch	nair: Janice Ledge:	rwood	Dean:	Tom West	
Approved by (Curriculum Committee:				
			Curriculum Chai:	r Date	
		Vice	President of Inst	ruction Date	

Reedley College

REQUEST FOR COURSE REPEATABILITY (For reasons other than alleviating substandard work)

Course ID: ART 42	Course Title: Computer Animation/3D	Date: 03/03/08		
Number of times course r	may be repeated, excluding initial enrollment (1, 2, or 3):	3		
<u>or</u>				
	course may be repeated, including initial enrollment:			
	on is required under Title V, Part VI, Section 58161			
1. Explain how the cou	rse content differs each time it is offered:			
Digital imaging software continually changes. Students seeking employment in computer art must have skills using the most current software versions. Serious students also need the opportunity to apply technical skills to advanced projects for use in job portfolios.				
<u> </u>	or "B" listed below, explain how the student, by repeating the	is course will gain an expanded		
educational experience (A	ciencies are enhanced by supervised repetition and practice	within class periods. Explanation:		
A. Skills of profit	stelleres are clinanced by supervised repetition and practice	within class periods. Explanation.		
Digital imaging software is complex. Each time a course is repeated the students skills are enhanced. Employment opportunities increase with greater technical and design proficiencies. Computer skills are learned through direct experience, repetition, and application.				
B. Active Participobjectives are attain	patory experience in individual study or group assignments ned. Explanation:	is the basic means by which learning		