

# COURSE SYLLABUS

<b>Course Title:</b>	3-D Computer Animation II		<b>Date submitted:</b>	Spring 2014 (AAC:14-23)	
<b>Department:</b>	Arts				
<b>Curriculum:</b>	Visual Fine Arts				
<b>Course Descriptors:</b> Make certain that the course descriptors are consistent with college and Board of Trustees policies, and the current course numbering system.	<b>Course Code:</b> (eg. ACC 101)	DGA*161	<b>Prerequisites:</b>		
	<b>Course Type:</b>	L	C- or better in 3-D Computer Animation I (DGA*160)		
	A: Clinical B: Lab D: Distance Learning I: Individual/Independent L: Lecture N: M: Seminar Internship P: Practicum U: Studio X: Combined Lecture/Lab Y: Combined Lecture/Clinical/Lab Z: Combined Lecture/Studio				
	<b>Elective Type:</b>	FA/G/HU			
	E: English FA: Fine Arts G: General HI: History HU: Humanities LAS: Liberal Arts & Sciences FL: Foreign Language M: Math S: Science SS: Social Science				
	<b>Credit Hours:</b>	4	<b>Corequisites:</b>		
	<b>Developmental:</b> (yes/no)	No	None		
	Lecture:	2			
	Clinical:	0			
	Lab:	0			
Studio:	2				
<b>Contact Hours:</b>	Other: 0				
	TOTAL: 4	<b>Other Requirements:</b>			
<b>Class Maximum:</b>	20	None			
<b>Semesters Offered:</b>	F/SP/S				
<b>Ability-Based Education (ABE) Statement:</b>	At Tunxis Community College students are assessed on the knowledge and skills they have learned. The faculty identified the General Education Abilities critical to students' success in their professional and personal lives. In every class, students are assessed on course abilities, sometimes program abilities, and, in most classes, at least one General Education Ability. Students will receive an evaluation of the degree to which they have demonstrated or not demonstrated that General Education Ability.				
<b>Catalog Course Description:</b>	Takes the student to a higher level of professional animation by introducing character animation, audio bytes, UV mapping, scripting, lighting and atmospheric effects, more detailed motion paths, and parenting set-ups. The students will produce a finished animated sequence that uses titles and credits along with a storyboard and script. Detailed texture mapping and rendering will be part of the course. There will be one collaborative project during the semester.				
<b>Topical Outline:</b> List course content in outline format.	1. Developing the 3-D scene environment A. Preparing a scene to be animated  2. Defining figure movement A. Parenting techniques				

3. Key-framing more sophisticated forms
  - A. Working with advanced timelines
  - B. Working with more skillful motion paths
4. Controlling object properties
  - A. Deforming and altering forms in time
  - B. UV mapping
5. Advanced special effects (particles, smoke, fire, lighting)
  - A. Atmospheric conditions\
    1. Clouds, fog, wind
      - a. Skybaker
  - B. Advanced lighting
    1. Multiple lighting sources
    2. Types of lights
      - a. spots, linear, distant, point
      - b. lenses
        1. Fresnels, volumetrics, global illumination
6. Cameras
  - A. Focal lengths
  - B. Shapes of frames
  - C. Wide angle, normal, zoom, depth of field
7. Storyboarding a project
  - A. Drafting the story
    1. Outline of events, sequences
    2. Object and character list
8. Creating files and saving files
9. Building a scene with models
  - A. Positioning objects
10. Animating the storyboarded project
  - A. Following the written document with timelines
11. Introducing sound into the animation
12. Rendering the scene
  - A. Types of renderers
  - B. Level of render
  - C. Anti-aliasing
  - D. After effects
    1. Grass, hair, fur, lights
13. Final project

	<p>14. Working on a collaborative project                  A. Model builders, storyboard scripters, effects persons, animators, renderers</p>
<p><b>Outcomes:</b>                  Describe measurable skills or knowledge that students should be able to demonstrate as evidence that they have mastered the course content.</p>	<p><b>Upon successful completion of this course, the student will be able to do the following:</b>  <b>COURSE:</b></p> <ol style="list-style-type: none"> <li>1. design and build advanced 3-D animation sequences</li> <li>2. animate highly developed scenes from constructed models</li> <li>3. storyboard a medium length animation</li> <li>4. create a workflow for the storyboarded animation project</li> <li>5. animate a final storyboarded animation project</li> <li>6. create a collaborative animated sequence with titles and credits</li> </ol> <p><b>PROGRAM:</b> <i>(Numbering reflects Program Outcomes as they appear in the college catalog)</i></p> <p><b>Visual Fine Arts Associate Degree</b></p> <ol style="list-style-type: none"> <li>4. Demonstrate the ability to work out visual problems as they occur in specific projects to achieve competent design resolutions.</li> <li>12. Use critical thinking and philosophical skills as they apply to the artistic process.</li> </ol> <p><b>GENERAL EDUCATION:</b> <i>(Numbering reflects General Education Outcomes as they appear in the college catalog)</i></p> <ol style="list-style-type: none"> <li>1. <b>Aesthetic Dimensions</b> - Students will understand the diverse nature, meanings, and functions of creative endeavors through the study and practice of literature, music, the theatrical and visual arts, and related forms of expression.                         <p><b>Demonstrates:</b> Identifies and describes formal aspects, historical or cultural context, and aesthetic elements of the genre with clarity and appropriate vocabulary.</p> <p><b>Does Not Demonstrate:</b> Unable to clearly identify and describe the formal aspects, historical context, and aesthetic elements of the genre.</p> </li> </ol>
<p><b>Evaluation:</b>                  List how the above outcomes will be assessed.</p>	<p><b>Assessment will be based on the following criteria:</b></p> <ol style="list-style-type: none"> <li>1. class discussion and participation</li> <li>2. exams and quizzes</li> <li>3. class projects/presentations</li> </ol>
<p><b>Instructional Resources:</b>                  List library (e.g. books, journals, on-line resources), technological (e.g. Smartboard, software), and other resources (e.g. equipment, supplies, facilities) required and desired to teach this course.</p>	<p><b>Required:</b> Macintosh computer laboratory, inkjet printers (already in place)</p> <p><b>Desired:</b> Advanced render farm hardware</p>
<p><b>Textbook(s)</b></p>	<p>Refer to current academic year printout.</p>