# COURSE SYLLABUS

<table>
<thead>
<tr>
<th>Course Title:</th>
<th>3-D Digital Animation I</th>
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<tbody>
<tr>
<td>Department:</td>
<td>Arts</td>
</tr>
<tr>
<td>Curriculum:</td>
<td>Visual Fine Arts</td>
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| Date submitted: | Spring 2014 (AAC: 14-23) |

<table>
<thead>
<tr>
<th>Course Code:</th>
<th>DGA*160</th>
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<tbody>
<tr>
<td>Course Type:</td>
<td>Z</td>
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<tr>
<td>Elective Type:</td>
<td>FA/G/HU</td>
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| Prerequisites: | C- or better in 3-D Computer Modeling (GRA*275) and Drawing II (ART*112) |

| Credit Hours: | 3 |
| Developmental: | No |
| Lecture: | 2 |
| Clinical: | 0 |
| Lab: | 0 |
| Studio: | 2 |
| Other: | 0 |
| TOTAL: | 4 |

| Class Maximum: | 20 |
| Semesters Offered: | F/SP/S |

## Ability-Based Education (ABE) Statement:
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.

## Catalog Course Description:
An introductory course in three dimensional computer animation. The student will learn key framing, motion paths, creating a preview animation, camera functions, lighting techniques, modifiers and deformers. A basic short animation will be executed from the ground up using a constructed scene based on a storyboard working with variable elements within a scene and creating a workflow.

## Topical Outline:
1. Understanding the 3-D scene environment window(s)
   - Defining toolbar functions
2. Preparing a scene to be animated
   - Importing models
   - Deforming and altering models
3. Understanding key-frames and controlling their speed  
   A. Working with timelines  
   B. Speeds of frames  
   C. Working with motion paths  
      1. Controlling object properties  
         a. Deforming and altering forms in time  
         b. Weight maps

4. Special effects  
   A. Particles, smoke, fire  
      1. hypervoxels  
      2. particle emitter

5. Storyboarding a project  
   A. Writing a storyline  
   B. Drawing key frames  
      1. Transition key frames

6. Creating files and saving files  
   A. Building a good file system

7. Building a scene with models  
   A. Planning a scene  
      1. Storing objects

8. Animating the storyboarded project  
   A. Following a plan

9. Rendering the scene  
   A. Preparing a scene for rendering  
      1. Render settings  
      2. What is a render farm?

10. Final project  
    A. Bringing a project to completion  
       1. Final rendering  
          a. Saving rendered files

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**Outcomes:**  
Describe measurable skills or knowledge that students should be able to demonstrate as evidence that they have mastered the course content.

Upon successful completion of this course, the student will be able to do the following:  

**COURSE:**  
1. design and build 3-D animation models  
2. animate small scenes from constructed models  
3. storyboard a short animation  
4. create a workflow for the storyboarded animation project  
5. animate a final storyboarded animation project

**PROGRAM:** (Numbering reflects Program Outcomes as they appear in the college catalog)
<table>
<thead>
<tr>
<th><strong>Visual Fine Arts Associate Degree</strong></th>
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<td>4. Demonstrate the ability to work out visual problems as they occur in specific projects to achieve competent design resolutions.</td>
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<td>12. Use critical thinking and philosophical skills as they apply to the artistic process.</td>
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**GENERAL EDUCATION:** *(Numbering reflects General Education Outcomes as they appear in the college catalog)*

1. **Aesthetic Dimensions** - 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.
   - **Demonstrates:** Identifies and describes formal aspects, historical or cultural context, and aesthetic elements of the genre with clarity and appropriate vocabulary.
   - **Does Not Demonstrate:** Unable to clearly identify and describe the formal aspects, historical context, and aesthetic elements of the genre.

**Evaluation:**

List how the above outcomes will be assessed.

- Assessment will be based on the following criteria:
  1. class discussion and participation
  2. exams and quizzes
  3. class projects/presentations

**Instructional Resources:**

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.

- Required: Macintosh computer laboratory, inkjet printers (already in place)
- Desired: None

**Textbook(s)**

Refer to current academic year printout.