**EASTERN ARIZONA COLLEGE**  
**Introduction to Computer Animation**  
*Course Design*  
2010-2011

**Course Information**

**Division**  
Industrial Technology Education

**Course Number**  
MDC 210

**Title**  
Introduction to Computer Animation

**Credits**  
2

**Developed by**  
Dee Lauritzen

**Lecture/Lab Ratio**  
1 Lecture/2 Lab

**Transfer Status**

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<th>ASU</th>
<th>NAU</th>
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<td>Elective Credit</td>
<td>VC Departmental Elective also satisfies: EMF Departmental Elective</td>
<td>M AR268R</td>
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**Activity Course**  
No

**CIP Code**  
10.0200

**Assessment Mode**  
Portfolio

**Semester Taught**  
Upon Request

**GE Category**  
None

**Separate Lab**  
No

**Awareness Course**  
No

**Intensive Writing Course**  
No

**Prerequisites**

None

**Educational Value**

Students seeking the Media Communications Certificate.

Individuals from local industry or the community seeking instruction in the use of the latest in animation software and hardware, focusing on the Alias/Wavefront Maya software.

**Description**

Students are introduced to the world of computer animation. Students will learn how to create objects, texture, and animations using one of the industry leading animation programs (MAYA). Students will explore various types of special effects and particle emitters.
Competencies and Performance Standards

1. Create 3D Objects

Learning objectives
What you will learn as you master the competency:

a. Create 3D Primitive Objects
b. Modify 3D Primitive Objects

Performance Standards
Competence will be demonstrated:

- by completing lab assignments, using software & equipment provided in the CADD lab
- by completion of tutorial assignments

Criteria - Performance will be satisfactory when:

- learner creates a 3D object using NURBS modeling techniques
- learner creates a 3D object using POLYGON modeling techniques
- learner modifies a 3D object by extruding faces, edges, shaping, etc.

2. Create Textures on 3D Objects

Learning objectives
What you will learn as you master the competency:

a. Create Texture Maps
b. Assign Textures to 3D Objects
c. Modify Texture Maps

Performance Standards
Competence will be demonstrated:

- by completing lab assignments, using software & equipment provided in the CADD lab
- by completion of tutorial assignments

Criteria - Performance will be satisfactory when:

- learner creates a texture map
- learner applies a texture map to a 3D object
- learner modifies a texture map

3. Animate 3D Objects

Learning objectives
What you will learn as you master the competency:

a. Use a 3D Animation Program
b. Animate Objects
c. Graph an animated sequence in the graph editor.
d. Render Animated Objects


**Performance Standards**

*Comprehension will be demonstrated:*
- by completing lab assignments, using software & equipment provided in the CADD lab
- by completion of tutorial assignments

*Criteria - Performance will be satisfactory when:*
- learner creates motion animation
- learner modifies animation parameters

4. **Explore Animation Special Effects**

**Learning objectives**
*What you will learn as you master the competency:*
- Explore Special Effects.
- Animate a Particle Emitter.

**Performance Standards**

*Comprehension will be demonstrated:*
- by completing lab assignments, using software & equipment provided in the CADD lab
- by completion of tutorial assignments

*Criteria - Performance will be satisfactory when:*
- learner creates a particle emitter
- learner animates particles emitted from a particle emitter

5. **Create Production Quality Output**

**Learning objectives**
*What you will learn as you master the competency:*
- Arrange animations for output.
- Identify the correct output source for the type of illustration (ie. video, cd-rom, DVD, internet).
- Create the output on the selected output device.

**Performance Standards**

*Comprehension will be demonstrated:*
- by completing lab assignments, using software & equipment provided in the CADD lab.

*Performance will be satisfactory when:*
- project is presented to class
- animation project is copied to videotape, CD, DVD, or internet

*Types of Instruction*

Classroom Presentation
Laboratory
Grading Information

Grading Rationale
Students will receive full credit for any assignment that meets all of the criteria as given by the instructor. Tutorials and Video presentations will be graded as completed or not completed. Project assignments will be assessed on a 5 point rubric. Points will be lost if work is not satisfactory, late, or incomplete.

Grading Scale

A  90% - 100%
B  80% - 89%
C  70% - 79%
D  60% - 69%
F  00% - 59%