



ANTELOPEVALLEY COLLEGE

**Academic Affairs  
Course Outline of Record**

**Academic Affairs Only**

- New Course
- COR Revision 12/11/2008
- COR Update
- Pre Req/Advisories 12/11/08
- Other Changes 12/11/08
- Effective Date
- SLO 4/14/2008

**COURSE SUBJECT & NUMBER:** DM 143

**COURSE NAME:** \*Computer 2-D Animation (formerly CG 143)

**COURSE UNITS:** 3 **COURSE HOURS:** 4 hours weekly

**COURSE REQUISITES:** *(Follow format of similar courses found in the college catalog.)*

**Corequisite:** Concurrent enrollment in DM 143L.

**Advisory:** Completion of DM 101, ART 110, and Eligibility for READ 099.

**Instructional materials fee** required for this course and must be paid at registration.

**COURSE DESCRIPTION:** *(Write a short paragraph providing an overview of topics covered. Be sure to identify target audience--transfer, major, GE, degree/certificate, etc. If repeatable, state the number of times at end of description.)*

This course provides the student with a basic overview and development of computer techniques required for the production of 2-D animation. Topics covered are traditional methods, timing, spacing, keyframes, emotion, weight, and mood to communicate story or message. (CSU, AVC) (R2)

**COURSE OBJECTIVES:** *(Use Bloom's taxonomy to formulate concise, performance-based measurable objectives common to all students. Objectives must be closely aligned with course content, assignments, and methods of evaluation.)*

**Upon completion of course, the successful student will be able to:**

1. Implement traditional 2-D methods on paper.
2. Demonstrate the ability to establish proper timing.
3. Demonstrate the development of keyframes and in-betweening.
4. Establish the proper method of communicating through the use of emotion, action, and mood.
5. Utilize vector animation programs and pixel-based programs to achieve animation.
6. Illustrate the ability to publish/render final animations into a cross-platform format.
7. Effectively work together in groups to accomplish a production-type animated concept.

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**Course Name:** Computer 2-D Animation

**COURSE CONTENT:** *(Enter course content in terms of specific topics or a specific body of knowledge that each instructor must cover. Put topics in outline form with major and minor headings. Title 5 requires that each instructor must cover all material listed below.)*

I. Introduction

- a. Review of basic animation techniques used to create single subject animations.
- b. Wireframe development, rotation, elongation, and movement along a grid pattern.

II. Identification and exploration of the 2-D animation techniques

- a. Overlay characters
- b. Establish differential planes
- c. Multiple perspectives within a 360 degree landscape.

III. Texture mapping techniques

- a. Create natural and original textural character surfaces.

IV. Lighting sources

- a. Creating multiple lighting sources
- b. Intensities and placement
- c. Shadowing to emphasize animated movements.

V. Fastload compression

- a. Establishing procedures
- b. Making simple deformations of animated characters.

VI. Quicktime movies

- a. Creating animated subjects
- b. Using cross-platform

VII. Transferring 2-D animations

- a. Procedures used with videotapes
- b. Procedures used with CD-ROM/DVD production units.

VIII. Multiple character animation

- a. Design elements
- b. Production on videotapes or a CD- ROM/DVD production unit
- c. Final project.

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**TYPICAL HOMEWORK ASSIGNMENTS: (Do not include in-class work, quizzes, or tests)**

*This information is necessary for all credit courses. Assignments should be closely related to course objectives, content, and methods of evaluation. (See sample of a “Model Outline” in the AP&P Standards & Practices handbook.) Include a range of assignments (minimum of three) from which faculty may choose when designing their syllabus.*

**1. Describe nature and frequency of typical reading assignments if applicable; note if any are required:**

Students will read 10 pages a week from the textbook and other assigned readings.

**2. Describe nature and frequency of typical writing assignments if applicable; note if any are required:**

During the semester, students will write a two-page story that will then be animated.

**3. Describe nature and frequency of typical computational assignments if applicable; note if any are required:**

Simple math for calculating object size, placements, and animating timing.

**4. Describe other types of homework assignments that students may be asked to complete (oral presentations; special projects; visual/performing arts; etc); note if any are required:**

Complete projects assigned in class and in the lab based on specified requirements from the instructor.

**5. Describe those critical thinking skills that are derived from assignments listed above; be sure that they reflect course objectives.**

Planning ahead for finished work and the transfer of data to the next department as in a production studio. Analyze feedback from critiques and make corrections.

**6. For categories 1-4 above, describe the estimated time per week it would take a student to complete homework assignments. Title 5 uses the Carnegie formula for establishing units using a 2:1 ratio as follows: 1 hr. lecture = 2 hrs. homework; 2 hrs. lecture = 4 hrs .homework; etc. For example: reading textbook—2 hours; writing reports—3 hours.**

**Reading Assignments:** One hour

**Writing Assignments:** One Hour

**Computational Assignments:** One hour

**Other Assignments:** Five Hours

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**METHODS OF INSTRUCTION:** *(Methods must be consistent with content and appropriate to objectives; state in terms of what instructor will be doing in order to present course content to students: for example, lecture, demonstration, present audio/visual materials; facilitate group work, etc. Do not list specific instructional equipment.)*

Introduce traditional concepts of 2-D animation. Explain timing, spacing, and keyframes by drawing on paper. Explain the common tools for 2-D animation on the computer. Give examples of tool functionality and rendering concepts. Several programs are used to complete these examples.

**METHODS OF EVALUATION:** *(These must be clearly related to course objectives and reflect course content and assignments in order to comply with Title 5 requirements. Describe what instructor will be looking for when evaluating various assignments and tests in order to determine whether students have met course objectives. Grades must be based on demonstrated proficiency in subject matter and determined, where appropriate, by essays, objective and essay tests, research papers or projects, problem solving exercises, or skills' demonstrations.)*

1. Instructor-graded animation assignments (drawn) for accurate timing spacing and in-betweens.
2. Instructor-graded drawn animation exhibiting weight transfer and expressions.
3. The ability to follow directions carefully and precisely.
4. Demonstrate the ability to take instruction and go beyond the assignment by experimenting with other techniques.
5. Working in groups to understand the real-world environment of such work.
6. Demonstrate a final knowledge through a personal project that includes all aspects of instruction covered in class.
7. Instructor-graded written test of terminology and definitions related to the 2-D environment.
8. Instructor-graded two-page story.

**Suggested Texts or other Instructional Materials** *(list several when possible; include title, author, publisher, date, and latest edition.)*

The Animator's Survival Kit. Williams, Richard, Published by Faber and Faber, 2001.