

## VALLEY ROP COURSE OUTLINE

**COURSE TITLE:** Digital Animation for the Web

**VALLRY ROP #:** AME-5711-DigAniWeb

**CDE #:** 1307

**CBEDS TITLE:** Digital Animation

**CBEDS #:** 5711

**CTE SECTOR:** Arts, Media & Entertainment

**CTE PATHWAYS:** Media & Design Arts

**JOB TITLES:** Cartoonist 27-1014.00

Cartoonist, Motion Picture 27-1014.00

Graphic Designer 27-1024.00

### **COURSE DESCRIPTION:**

This course focuses on generating art through the use of the computer. Students will study composition, technique, color, special concepts, rendering (shading), and animation techniques of movement, in-betweens, walks, runs and facial movement. The class will incorporate computer ethics while enabling the students to become computer literate through hands-on experiences. Students will learn computer and printer operations, the use of the network, modem, and how to utilize Internet communications.

**DATE APPROVED:** February 23, 2001

**REVISED DATE(S):** December 12, 2008 / March 2009 / Oct 2009

**HOURS:** 360 hours

**CREDITS:** 10

**PREREQUISITES:** None

**GRADE LEVEL:** 11-12

**ARTICULATION(S):** None

**TEXTBOOKS/RESOURCES:** Computer, art, and animation texts; Magazines-3D Design, Computer Graphics World; Videos-*Jurassic Park*, *Toy Story*, *James and the Giant Peach*; Software-Paintbrush, Corel Draw, Auto Animator, True Space 1

### **COURSE COMPETENCIES:**

Upon completion of this course, the student will:

- Demonstrate basic drawing techniques by creating simple hand drawings showing surface, shading, shadow, density, contour, perspective.

- Apply basic drawing techniques to computer art by creating drawings using computer paint programs.
- Demonstrate ability to use computer animation software by creating, editing, and playing animated drawings in two and three dimensions.
- Show understanding of the role of computer system components in art and animation by proper and efficient use of hardware.
- Demonstrate the use of the Internet as a resource by researching art and animation topics.
- Integrate the skills and knowledge acquired in this course by creating a final animated project which tells a story in a specified number of frames.
- Show knowledge of the job market for this field by researching and discussing careers in animation, advertising, and commercial art, including the education and training needed.

#### **INSTRUCTIONAL METHODS:**

- Individual/group instruction
- Cooperative learning
- Current textbooks and technology
- Demonstrations
- Field trips
- Speakers

#### **EVALUATION METHODS:**

Assessment opportunities, which allow continuous evaluation of students' progress, will be embedded throughout the course and should be a learning experience. All students will be expected to achieve mastery of all topics; often, demonstrations of mastery will occur in a public forum. The following strategies, which include both formal and informal assessment techniques will include, but are not limited to:

- Portfolio
- Classroom participation
- Completion of required assignments/portfolio
- Individual and group projects
- Industry-related tests
- Punctuality and attendance

## **COURSE OUTLINE:**

<b>Unit of Instruction</b>	<b>Estimated Hours</b>
<b>Introduction</b>	<b>2.5</b>
<ul style="list-style-type: none"><li>• Computer room rules of conduct</li><li>• Federal and district copyright laws</li><li>• Internet use policy (to be signed by students)</li></ul>	
<b>Art</b>	<b>30</b>
<ul style="list-style-type: none"><li>• Elements and design principles</li><li>• Drawing techniques (Surface, shading, shadow, density, contour, etc.)</li><li>• Color use</li><li>• Shading/rendering</li><li>• Animation techniques</li></ul>	
<b>Computer Paint Programs</b>	<b>50</b>
<ul style="list-style-type: none"><li>• Paint freeform art with a mouse</li><li>• 2D Animation program – movement of objects</li><li>• 3D Draw and Animation program</li></ul>	
<b>Animation Rendering</b>	<b>50</b>
<ul style="list-style-type: none"><li>• Spatial concepts</li><li>• Colorization</li><li>• Movement</li><li>• Editing the animated frames</li><li>• Playing the Animation</li></ul>	
<b>Computer Hardware</b>	<b>15</b>
<ul style="list-style-type: none"><li>• Parts, care, and handling</li><li>• Basic operations</li><li>• Disk operating system operations</li><li>• Use of the Network</li><li>• Use of the Internet</li></ul>	
<b>Final Animation Project</b>	<b>22.5</b>
<ul style="list-style-type: none"><li>• Detailed drawing</li><li>• Specified number of frames</li><li>• Storyboard</li><li>• Completed project/presentation</li></ul>	
<b>Employment Preparation</b>	<b>10</b>
<ul style="list-style-type: none"><li>• Career overview (hardware and software occupations)</li><li>• Finding job openings</li><li>• Portfolio development</li><li>• Writing resumes</li></ul>	
<b>Completing applications</b>	<b>90</b>
<ul style="list-style-type: none"><li>• Selecting work samples</li><li>• Interviewing practice</li><li>• Work ethics and human relations</li></ul>	
<b>Community Classroom</b>	<b>90</b>
<ul style="list-style-type: none"><li>• Cooperative Vocational Education</li></ul>	
<b>Total Hours</b>	<b>360 Total Hours</b>

## Standards Integrated:

Project	Sample Activity to Meet Standards	Standards
1. Introduction to Drawing	Students will be able to identify and draw basic 2D shapes and 3D forms. They will be able to analyze and draw complex shapes and forms and break them down into simpler components. Students will be able to demonstrate how these shapes and forms relate to underlying form, animation principles and simple perspective.	1.1, 2.1, 2.2, 2.4, 4.3
2. Introduction to Art History	Students will view slides of early to modern art and will discuss what they think "art" is. They will read and discuss the art history text. Students will write/ explain how much of art evolved from objects of a practical use or spiritual design. Students take a field trip to visit the Getty Museum or the LA County Museum.	3.1, 3.2, 3.4 4.3, 4.5, 5.3, 5.4
3. Introduction to animation	Students will read about animation history and view early video examples. Students will read about the history of optical Movement and design and produce a flipbook and a phenakistoscope. Students will learn to recognize distinctive animation styles and the work of innovative animators.	1.1, 1.2, 1.3, 1.6 3.1, 3.2, 3.3, 5.2
4. Introduction to Gesture Drawing	Students view examples of gesture drawing. Teacher demonstrates gesture drawing to emphasize basic drawing principles and human anatomy. Students read and discuss the evolution of figure sculpture and drawing as it evolved through Etruscan, Greek and Roman art.	1.1, 1.2, 1.3, 1.5 2.1, 2.2, 2.4, 2.5 3.1
5. Introduction to Line and in Perspective	Students observe and investigate the world of line in nature and in man-made objects. They will understand and demonstrate through journal drawings, gesture drawings, and in-class reading assignments a knowledge of terminology and techniques associated with line and perspective.	1.1, 1.2, 1.3, 2.1, 2.4, 2.4, 3.1
6. Design Principles	Students will discuss the use of symbols in a logo, the art elements, the principles of design, and appropriate typography to communicate the desired message. Students will complete the design digitally, discuss the effectiveness of their design, and evaluate their work.	1.1, 2.1, 2.3, 2.5, 2.6, 3.2
7. Basic Animal Movement	Students will view examples and discuss the work of Eadweard Muybridge. Students will view examples of animal paintings to discover discrepancies in animal movement prior to the use of a camera. Students will gesture draw and photograph animals in motion.	1.3, 1.5, 1.6 2.3, 3.1, 3.2 3.4
8. Human Movement	Students will draw the human head from frontal, three-quarter view, and profile view. Students will draw the inbetween views to lead into a headturn animation.	1.1, 2.1, 2.2, 2.4

## **CAREER PREPARATION STANDARDS**

- A. **PERSONAL SKILLS** - Students will understand how personal skill development affects their employability. This skill includes positive attitudes, self-confidence, honesty, responsibility, initiative, self-discipline, personal hygiene, time management, and the capacity for lifelong learning.
1. Demonstrate an understanding of classroom policies and procedures.
  2. Discuss importance of the following personal skills in the business environment:
    - a. positive attitude
    - b. self-confidence
    - c. honesty
    - d. perseverance
    - e. self-management/work ethic
    - f. pride in product/work
    - g. dependability
  3. Identify acceptable work attire.
  4. Establish goals for self-improvement and further education/training.
  5. Prioritize tasks and meet deadlines.
  6. Understand the importance of initiative and leadership.
  7. Understand the importance of lifelong learning in a world of constantly changing technology.
- B. **INTERPERSONAL SKILLS** - Students will understand key concepts on group dynamics, conflict resolution, and negotiation. This skill includes the ability to work cooperatively, accept supervision, assume leadership roles, and show respect for others. This standard includes an understanding of sexual harassment laws and an appreciation of cultural diversity in the workplace.
1. Identify and discuss behaviors of an effective team.
  2. Explain the central importance of mutual respect in the workplace relations.
  3. Discuss and demonstrate strategies for conflict resolution and negotiation, and explain their importance within the business environment.
  4. Understand laws that apply to sexual harassment in the workplace, and identify tactics for handling harassment situations.
  5. Work cooperatively, share responsibilities, accept supervision and assume leadership roles.
  6. Demonstrate cooperative working relationships and proper etiquette across gender and cultural groups.
- C. **THINKING AND PROBLEM-SOLVING SKILLS** - Students will exhibit critical and creative thinking skills, logical reasoning, and problem-solving. These skills include applying basic skills in order to calculate, estimate, measure; identify, locate, and organize information/data; interpret and follow directions from manuals, labels, and other sources; analyze and evaluate information and solutions.
1. Recognize the importance of good academic skills and implement a plan for self-improvement as needed.
  2. Read, write, and give directions.
  3. Exhibit critical and creative thinking skills and logical reasoning skills, and employ these skills for problem solving.
    - a. Work as a team member in solving problems.
    - b. Diagnose the problem, its urgency, and its causes.
    - c. Identify alternatives and their consequences.

- d. Explore possible solutions.
  - e. Compare/contrast the advantages and disadvantages of alternatives.
  - f. Determine appropriate action(s).
  - g. Implement action(s).
  - h. Evaluate results of action(s) taken.
- D. COMMUNICATION SKILLS - Students will understand principles of effective communication. This standard includes effective oral and written communication, listening skills, following and giving directions, requesting and giving information, asking questions.
1. Use communication concepts in application of skills, techniques, and operations.
    - a. Prepare written material.
    - b. Analyze written material.
  2. Understand and implement written instructions, from technical manuals, written communications, and reference books.
  3. Present a positive image through verbal and nonverbal communication, and understand the power of body language in communication.
  4. Demonstrate active listening through oral and written feedback.
  5. Give and receive feedback.
  6. Demonstrate assertive communications (both oral and written).
  7. Demonstrate proper etiquette in workplace communications, including an awareness of requisites for international communications (languages, customs, time zones, currency and exchange rates).
  8. Demonstrate writing/editing skills as follows:
    - a. Write, proofread, and edit work.
    - b. Use correct grammar, punctuation, capitalization, vocabulary, and spelling.
    - c. Select and use appropriate forms of technology for communication.
  9. Exhibit a proficiency in the use of reference books.
  10. Research, compose, and orally present information for a variety of business situations utilizing appropriate technology.
- E. OCCUPATIONAL SAFETY - Students will understand occupational safety issues, including the avoidance of physical hazards in the work environment. This includes the safe operation of equipment, proper handling of hazardous materials, appropriate attire and safety accessories, avoidance of physical injuries, interpretation of warning and hazard signs and terminology, and following and understanding safety-related directions.
1. Discuss and implement good safety practices, including the following (if applicable to course):
    - a. personal
    - b. lab
    - c. fire
    - d. electrical
    - e. equipment
    - f. tools
    - g. interpretation of Material Safety Data Sheets (MSDSs)
    - h. Environmental Protection Agency (EPA)
    - i. Occupational Safety and Health Administration (OSHA)
    - j. American Red Cross Standards (ARC)
    - k. Networking Safety Standards
  2. Apply sound ergonomic principles in organizing one's work space.

F. EMPLOYMENT LITERACY - Students will understand career paths and strategies for obtaining employment within their chosen field. This includes traditional job preparation skills, such as resumes, application forms, cover letters, sources of employment information, and interviewing skills, but also includes an overview of the industry and an understanding of labor market trends.

1. Explore career opportunities and projected trends; investigate required education, training and experience; and develop an individual education plan.
2. Identify steps for setting goals and writing personal goals and objectives.
3. Examine aptitudes related to career options; relate personal characteristics and interests to educational and occupational opportunities.
4. Develop a career portfolio, including the following documents:
  - a. job application
  - b. resume(s)
  - c. appropriate cover and follow-up correspondence
5. Identify and demonstrate effective interviewing techniques.

G. TECHNOLOGY LITERACY - Students will understand and adapt to changing technology by identifying, learning, and applying new skills to improve job performance. Students should understand the role of technology in their chosen field and should be able to use all appropriate technology. Students should also feel confident in their ability to learn new technology by generalizing from what they know, adapting skills to new situations, and identifying and using sources of information and of further learning.

1. Demonstrate the ability to use personal computers for loading and retrieving data, information gathering, measurements, and writing.
2. Identify the characteristics and explain the importance of adapting to changes, being flexible, and evaluating goals when working in the industry.
3. Understand the importance of lifelong learning in adapting to changing technology.

H. IMPORTANCE OF ETHICS – Students will understand proper ethics in the workplace.

1. Discuss social and ethical responsibilities in the industry.
2. Demonstrate ethical choices in workplace situations.