

**OAKTON COMMUNITY COLLEGE
GENERIC COURSE SYLLABUS**

I.	<u>Course Prefix</u>	<u>Course Number</u>	<u>Course Name</u>	<u>Credit</u>	<u>Lecture</u>	<u>Lab</u>
	ART	259	Web Graphics, Animation, And Multimedia	3	0	6

II. Prerequisite

ART 216

III. Course (catalog) Description

This course covers the use of graphics, animation, and multimedia in Web page design and production. Fundamentals of graphic production, layout design principles, animation, and the engineering principles of multimedia are included. A final project will incorporate graphics, sound, and movies.

IV. Learning Objectives

1. To understand how web pages are put together.
2. To demonstrate the ability to design and author web pages.
3. To understand the limitations of the web.
4. To demonstrate the ability to use graphics, animation, and multimedia on a web page.
5. To understand the basic concepts and terms used in web page production.
6. To understand the hardware and software involved in the design and production of web pages and the implementation of web pages for the end user.
7. To demonstrate familiarity with the legal and ethical issues related to the design and use of web sites.

V. Academic Integrity:

The very nature of higher education requires that students adhere to acceptable standards of academic integrity. Therefore Oakton Community College has adopted a Code of Academic Conduct and a Statement of Student Academic Integrity. These may be found in the student handbook. You may also find a summary of the Code of Academic Conduct in the College Catalog. Among the violations of academic integrity listed and defined are: cheating, plagiarism, falsification and fabrication, abuse of academic materials, complicity in academic dishonesty, falsification of records and official documents, personal misrepresentation and proxy, and bribes, favors, and threats.

It is the student's responsibility to be aware of behaviors that constitute academic dishonesty.

Pursuant to the due process guarantees contained in the Policy and Procedures on Student Academic Integrity, the minimum punishment for the first offense for a student found in violation of the Standards of Academic Integrity is failure in the assignment. In addition, a disciplinary record will be established and kept on file for Student Affairs for a period of three years.

VI. Outline of Topics:

A. Ethical and legal issues in web design.

B. Web hardware fundamentals

1. CPU and platforms
2. Storage
3. Memory
4. Modem
5. Input
 - a. keyboard
 - b. mouse
 - c. tablet
6. Monitor

C. Electronic Imaging Fundamentals

1. Resolution and Raster
 - a. PPI
 - b. LPI
 - c. DPI
2. Physical size and resize of image
3. Quality Issues
 - a. brightness
 - b. contrast
 - c. dynamics and histograms
4. Color
 - a. Color Theory
 - (1) Additive system
 - (2) Subtractive system
 - b. Color Mode
 - (1) RGB
 - (2) CMYK
 - (3) LAB
 - (4) INDEX
 - (5) HSV
 - c. Web Color
 - (a) Browser safe color
 - (B) limited palettes

5. Format and Files
 - a. File Type
 - (1) JPG
 - (2) GIF
 - (3) PnP
 - b. Transparent
 - c. Animated
 - d. Interlaced
 - e. Web TV
 6. Scanning
 - a. Flatbed
 - b. Film
 - c. CD
- D. Graphic Software
1. Pull down menus
 - a. File
 - b. Edit
 - c. Image, effect and filters
 - d. Select
 - e. Window
 - f. Help
 2. Tools
 - a. Selection
 - (1) Lasso
 - (2) Rectangle
 - (3) Oval
 - (4) Path
 - (5) Magic wand
 - b. Magnifier
 - c. Bucket
 - d. Eyedropper
 - e. Eraser
 - f. Pencil-brush
 - g. Flat hand mover
 - h. Clone-rubber-stamp
 3. Palettes
 - a. Color
 - b. Path, floater and layers
 - c. Brushes
 - d. Information

- E. Design Fundamentals
 - 1. Order
 - 2. Rhythm and Harmony
 - 3. Focal point
 - 4. Types of organization
 - a. Repetition
 - b. Bleeding
 - c. Isolation
 - d. Dominance
 - e. Movement
 - f. Symmetry and Asymmetry
 - 5. Page Layout Design
 - a. Concept and storyboard
 - b. Grid, column, margin
 - c. Headline, bullets, and captions
 - d. White space, rules and borders

- F. Page Construction
 - 1. Background
 - a. Pattern making and tiling
 - b. Pattern size
 - c. Seams
 - d. Directional wallpaper
 - 2. Symbols
 - a. Clip Art
 - b. Coloring
 - 3. Rules
 - a. Normal, vertical, and horizontal
 - b. Decorative
 - 4. Buttons
 - a. Interactive buttons
 - b. Types
 - (1) Beveled
 - (2) Multicolored
 - (3) Globe
 - (4) Glass
 - (5) Spherized
 - 5. Bullets
 - a. Ordered and definition lists
 - b. HTML
 - c. Custom made
 - 6. Titles
 - a. Drop shadow
 - b. Image on image
 - c. 3D

- d. Outline
- 7. Menu Bars
 - a. Tabs
 - b. Shadows
 - c. Pictures in pictures
 - d. Stripes

- G. Animation
 - 1. Fundamentals
 - a. Frame rate
 - b. Key frames and tweening
 - c. Cell animation
 - d. Tracks and animation sequence
 - e. Formats
 - (1) Avi
 - (2) .Mov and .qt
 - (3) AVI
 - (4) MPEG
 - (5) Streaming
 - (a) Stream works
 - (b) VDOLive
 - (c) Movie Star
 - 2. Techniques
 - a. Onion skin
 - b. Cycling
 - c. Hierarchical motion
 - d. Anticipation
 - e. Cut out
 - f. Compositing
 - g. Line of action
 - 3. QuickTime Animation
 - a. Technology overview
 - b. Flat movies
 - c. Fast start movies
 - d. Production software
 - e. Cross Platform considerations
 - f. QuickTime and HTML
 - g. Interface and page design
 - 4. Shockwave
 - a. Technology overview
 - b. Creating animation in Director
 - c. Lingo network extensions
 - d. Score based animation

H. VRML

1. Development and history of VRML technology
2. Mechanics
 - a. Binary mathematics
 - b. Cartesian plane
 - c. Transition from 2D to 3D space
3. VRML specifications
4. VRML editors

I. Sound

1. Audio basics
 - a. Midi and audio digital
 - b. Sound editing
 - c. File formats
 - d. Recording
2. Web pages and sound
 - a. RealAudio
 - b. Screaming audio
3. Synthesis and midi basics

VII. Methods of Instruction:

This course will be presented using a combination of lectures, slide presentations and the use of the college's computer workstations.

VIII. Course Practices Required:

1. Complete all assigned readings in the textbooks
2. Read the assigned online articles (there are links to each from the course web site).
3. Complete all of the assigned exercises and projects and present each in class as scheduled in the course calendar.
4. Take a midterm exam and a final exam as scheduled in the course calendar. The midterm and final exam will be based on the chapters in your textbooks, online readings, class demonstrations and lectures and handouts. The exams will include multiple choices, true/false and short answer questions. Study questions will be available on the course web site.

IX. Instructional Materials:

1. At least one 100MB Zip cartridge (IBM format) and several diskettes
2. Representative textbooks:
 - a. *The Non-Designer's Web Book*, by Robin Williams and John Tollett
 - b. *Dreamweaver MX Hands –On Training*, by Garo Green & Abigail Rudner
 - c. *Macromedia Fireworks MX: Design Professional Series*, by Barbara Waxer

X. Methods of Evaluating Student Progress:

The final grade will be based upon the following elements and their weights

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|--|-------------|-------------------|
| 1. Exercises (5) | 25% | 5 points each |
| [Exercises will consist of preparing graphics and animation for web pages.] | | |
| 2. Projects (3) | 45% | 15 points each |
| [For each project, students will develop a web site.] | | |
| 3. Midterm exam | 15% | 15 points |
| 4. Final Exam | 15% | 15 points |
| Total | 100% | 100 points |

XI. Other Course Information:

If you have a documented learning, psychological, or physical disability you may be entitled to reasonable academic accommodations or services. To request accommodations or services, contact the ASSIST office in The Learning Center. All students are expected to fulfill essential course requirements. The college will not waive any essential skill or requirement of a course or degree program.

Effective beginning term: Fall 2004 Ending term: _____

Syllabus prepared by: Bernard Krule Date: 7/20/04

Reviewed by Dept./Prog. Chair: Bernard Krule Date: 7/20/04

Approval by Dean: Linda A. Korbel Date: 7/20/04