COURSE INFORMATION

Course Prefix/Number:	**CTS1801**	Course Title:	**MULTIMEDIA AND ANIMATION**		
Number of Credits:	4.00	Clock Hours:			
Course Type:	☐ Lecture	☐ Lab	☒ Lecture/Lab Combo ☐ Internship	☐ Clinical	☐ College Prep.
Degree Type:	☐ B.A.S. ☐ C.P.P.	☐ B.S. ☐ A.T.C.	☐ A.A. ☐ C.C.C.	☒ A.S. ☐ C.T.C.	☐ A.A.S.

COURSE DESCRIPTION

This course introduces computer science and non-majors to the tools and techniques to create multimedia and animated presentations. Students will learn how to make appropriate hardware and software decisions, how to select and use various authoring systems and tools, and how to publish their work to the Web. Laboratory fee.

Prerequisite(s): CGS1060	Co-requisite(s):

COURSE COMPETENCIES

Learning Outcomes Legend:

1. Communication	4. Information Literacy	7. Ethical Issues
2. Numbers / Data	5. Cultural / Global Perspective	8. Computer / Technology Usage
3. Critical Thinking	6. Social Responsibility	9. Aesthetic / Creative Activities
		10. Environmental Responsibility

Competency 1: The student will demonstrate an understanding of key terms and concepts associated with graphics, multimedia, animation theory, and the various ways to deliver this type of content to an audience by:	
1. Defining multimedia and describing what it encompasses. 2. Comparing and contrasting different types of movie and graphic file formats. 3. Explaining the difference between bitmap and vector graphics. 4. Discussing the role of multimedia and animation in the modern business world. 5. Identifying different software titles used to create multimedia content.	**3**
Competency 2: The student will demonstrate an understanding of the main elements of the chosen multimedia software interface by:	
1. Identifying and using the Menu bar, Toolbars, and/or Panels where commands and features are located. 2. Identifying and using the Ruler, Grid, Guides, and any other tools that help to guide the creation process. 3. Displaying, hiding, and arranging various interface components.	
Competency 3: The student will demonstrate an understanding of various drawing tools by:	
1. Defining and using the path/stroke tools such as the Pencil, Line, and Pen. 2. Defining and using various shape tools, such as the Oval and Rectangle. 3. Defining and using various pointing and selection tools, such as Select, Sub-selection, and Lasso. 4. Defining and using object transformation tools such as Free Transform. 5. Defining and using various editing tools such as the Ink Bottle, Paint Bucket, and Eraser. 6. Using color appropriately and applying various types of gradients. 7. Adding text using the Text tool.	
Competency 4: The student will demonstrate an understanding of timeline management and the effective use of layers in order to create several different types of animation by:	
1. Working with the different types of frames that can be created in the timeline. 2. Defining frame rate and discussing its effects on animation. 3. Creating layers and configuring layer properties. 4. Creating guided and masked layers. 5. Creating a frame-by-frame animation. 6. Creating animation by using various types of tweening.	**2**
Competency 5: The student will demonstrate an understanding of the concept of object reusability by:	
1. Using the library to store and manage symbols. 2. Creating and editing a graphic symbol. 3. Creating button symbols and working with the various button states. 4. Creating movie clip symbols and understanding their relationship to the main timeline. 5. Manipulating the properties of symbol instances.	
Competency 6: The student will demonstrate an understanding of the import and use of bitmap images, sound files and video clips in their animations by:	

1. Importing, compressing and manipulating bitmap images. 2. Converting bitmap images to vectors. 3. Importing, compressing and editing sound files. 4. Synchronizing sound files with the animation. 5. Importing, compressing and editing video clips.	
Competency 7: The student will demonstrate an understanding of scripting language fundamentals and interactivity by:	**8**
1. Defining the use of scripting in creating interactive animations. 2. Controlling the animated movie with code. 3. Capturing and responding to keyboard, mouse, and other events. 4. Using code to link the animation to another web page.	
Competency 8: The student will demonstrate an understanding of publishing and exporting by:	
1. Describing the characteristics of the different file formats that they can publish and export. 2. Configuring the animated movie to ensure smooth playability and smallest possible file size. 3. Publishing the animated file within a web page or as a stand-alone web page. 4. Exporting parts of the animation for editing in other software.	
Competency 9: The student will demonstrate an understanding of bitmap editing, Web optimization, and prototyping by:	
1. Defining and using the various interface elements of a photo-editing program. 2. Defining and using various selection tools. 3. Defining and using tools to edit the dimensions and contents of an image, such as those that allow for scaling and cropping.	