

Media Arts & Animation Graduate Exit Competencies

Upon completion of the Media Arts & Animation Bachelor's Degree program, the student should be able to:

Foundation Competencies

Character Development

- Explain the creation and design of characters for the animated screen.
- Explore design styles and techniques for developing a wide range of character types, traits, mood, personalities, and attitudes for visually realizing an animated character.
- Create model sheets.
- Discuss the use of mime, dance choreography in developing character movement.
- Examine personality mannerism and attitude.
- Survey form, shape, and balance of character creation.

Color Theory

- Identify design and color terminology, traditional and electronic.
- Apply design principles to compositions.
- Produce a reference color wheel/chart.
- Apply color principles.
- Apply color to moving images, video and animation.

Computer Paint

- Define computer illustration and paint terminology.
- Translate and apply hand skill techniques into a digital environment.
- Show proficiency of input and output devices such as printers and scanners.
- Discuss printing and production techniques for illustration.
- Show a working knowledge of computer illustration and paint software.
- Apply good composition and design concepts to a completed paint project.

Drawing and Perspective

- Apply the concepts of one, two, and three-point perspective.
- Apply principles of overlap and foreshortening.
- Apply freehand and mechanical hand drawing construction processes.
- Define basic compositional devices - focal point, balance, unity, scale, proportion, contrast, movement, variety, and dominance.
- Apply perspective concepts, freehand construction processes, and basic compositional devices to the human skeleton.

Fundamentals of Design

- Identify and use appropriate tools.
- Compose a variety of grids for layouts.
- Use positive and negative shapes in a variety of compositions.
- Use point, line, and plane to create a design.

- Apply design devices: translation, rotation, dilation, contrast, rhythm, and center of interest in cohesive design.

Graphic Design

- Recognize the elements and principles of design.
- Enhance hand skills using ink, cut paper, technical pens, markers, and rubber cement.
- Use reference and research materials.
- Define the different stages of design - thumbnails, roughs, and final comps - and how the concept of the project is refined throughout the process.
- Stylize and simplify an image.
- Apply elements of graphic design to the creation of alternative letterforms.
- Creatively explore alternative graphic processes in the creation of expressive letterforms.
- Synthesize a logotype from letter and image.
- Apply historical, cultural, and practical antecedents to the design of expressive text typography.

Life Drawing

- Identify correct proportions.
- Apply proportions to figure drawings.
- Show form and gestures through the use of line and tone.
- Describe and draw anatomy - human and animal - to include: skeletal, muscles, and full figures.
- Create through a series of drawings: gesture, line of action, proportion - real versus cartoon - and character development.

Storyboarding and Concept Development

- Explore the creative processes used in solving design problems.
- Discuss concepts in problem solving with several types of clients.
- Script a concept, creating a storyboard and animatic.
- Explain the mechanics of the storyboard - keyframing, narrative, continuity.
- Examine tools and materials for storyboard creation.
- Create a concept and produce a storyboard and animatic that evaluates a concept's visual qualities and continuity as a reference to an accompanying script.
- Understand the role of story telling and its importance in the field of animation.

Systems Overview

- Identify major hardware and software components for the various animation and multimedia formats.
- Define terminology associated with systems integration.

Typography

- Read, space, and measure type.
- Identify typefaces and their characteristics.
- Discuss typographic variations in compositions.

- Solve design problems by using type as a design element.
- Students will be able to design and create type with motions.
- Understand the role of an animator in relation to use of typographic needs.

Video Production

- Explain signal flow.
- Identify camera parts and functions.
- Perform basic recording techniques.
- Prepare simple in-camera shot sequence.
- Identify basic editing styles.
- Identify computer and videotape components and functions.
- Perform basic editing.

History of Animation

- Explain and show examples of the following: early animation history, technology and development of animation since 1800's, the Golden Era of animation, TV/commercial uses, festivals, digital computer animation, future of animation - virtual reality, virtual presence, telepresence, real time interaction, ATM - global issues.

2D Animation - Traditional and Computer

- Compare and contrast the historical perspective of both traditional and computer animation.
- Define terminology and tools utilized in the animation industry, both traditional and computer.
- Discuss the concept of inbetweening to include: charts and breakdown drawings, slowing in and slowing out, thirds, key points, superimposition, arcs, and tracebacks.
- Characterize head turns and eye movements.
- Discuss the use of walks and runs to include: passing position, walk cycles, background pans, front on walks, animated and sill backgrounds, adding the arms, introducing personality, double bounce walk, timing, anticipation, and additional subtleties, and exaggerated action.
- Discuss the use of realistic touch to include: Weight in movement, anticipation and weight, flexibility, overlapping action, animated effects, such as wind, water, fire, and solid objects.

3D Animation

- Create 3D models.
- Render 3D objects and scenes.
- Animate 3D objects.
- Create an animation with rendered background and animated camera movement.
- Identify principles of modeling and rendering animation in the 3D environment.
- Describe, explain, and work with various formats and translation methods between different programs and computer platforms.
- Define design criteria for each media type.
- Define and work with output methods: print slides, videotape.

- Design all work using storyboard methods, then work from the storyboards in a timely manner.
- Create several images and animations, including a final project on videotape that are suitable for the student AE's portfolio tape.

Vector Drawing

- Explain the differences between vector drawing and paint.
- Define tools and terminology associated with vector-based graphics.
- Create a vector drawing project using computer-based draw/illustration software.

Audio Production Principles

- Explain signal flow.
- Identify audio equipment.
- Perform basic recording techniques.
- Prepare rudimentary sound track.

Animation for Interactive Products

- Discuss the interdisciplinary content required for the successful completion of interactive multimedia projects.
- Generate 2D and 3D animations for a web site.
- Generate 2D and 3D animations for interactive games.
- Explain the application of animation to interactive products and the global issues and concerns involved.
- Design animations for interactive products that are cross platform.
- Examine the applications for animation in an interactive virtual reality environment.

Desktop Video

- Combine and edit source material to create QuickTime movies that integrate video, audio, and animation allowing one to play digitized movies in a computer environment.
- Create output movies from computer top videotape.
- Export and Edit Decision List (EDL) from Adobe Premiere to a videotape production.
- Explain the uses of a non-linear system.
- Identify and compose complex images for 3D.
- Prepare 3D design.
- Create a motion path for objects within 3D design.
- Edit sequence together.

Portfolio

- Review with an advisor the direction in which the student has decided to specialize the portfolio.
- Produce professional entry-level productions.
- Define the differences among computer animation, video production, and multimedia presentations.

- Produce ten portfolio examples of creative problem solving by refining three functional examples of computer animation, multimedia, and computer illustration.
- Produce personal letterhead and cards.
- Produce a resume.

Special Effects

- Identify and design instances of special effects in popular media.
- Design and execute mechanical effects for taping.
- Design and execute optical effects for taping.
- Edit mechanical and optical effects together, utilizing electronic and digital effects providing a portfolio tape that could be shown to a prospective employer.
- Use digital tool to manipulate previously created models in 3D space.