ART A257: PROP AND VEHICLE DESIGN 2

Item	Value
Curriculum Committee Approval Date	03/26/2025
Top Code	101300 - Commercial Art
Units	3 Total Units
Hours	108 Total Hours (Lecture Hours 27; Lab Hours 81)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S)

Course Description

This advanced course explores design of props and vehicles for entertainment media, including games, film, and animation. Students will learn how to design intricate, story-driven props and vehicles that enhance world-building and support character narratives. Emphasis is placed on understanding real-world mechanics, material rendering, and developing unique designs that align with specific genres and settings. Through hands-on projects, students will refine their technical drawing skills, explore 3D modeling techniques, and produce professional-level concept sheets and turnarounds for their portfolios. PREREQUISITE: ART A252. ADVISORY: ART A118, ART A125, ART A135. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Design solutions from scripted assignments that clearly display advanced problem-solving abilities relating story to prop and vehicle design.
2. Create illustrations that apply advanced skills of perspective, drawing and painting toward creating compelling prop and vehicle designs.
3. Create several projects of narratively driven prop and vehicle design work created throughout the term suitable for job or college portfolio.

Course Objectives

- 1. Create advanced narrative driven designs for entertaining Props and Vehicles.
- 2. Illustrate prop and vehicle designs in the style and format for use in a professional portfolio.
- 3. Research and understand the current desired content and formats for a prop or vehicle designer in the Entertainment industry.
- 4. Understand and practice the various design drawing and painting types an entertainment prop and vehicle artist uses.
- 5. Develop skills in using industry standard software and hardware in the design and illustration of props and vehicles.
- 6. Understand the various prop and vehicle related roles in the Entertainment Media pipeline.

Lecture Content

1. Introduction to Prop and Vehicle Design in Entertainment Overview of Industry Applications: Role of props and vehicles in games, films, and animation. How design supports narrative and character development. Visual Development Process: Conceptualization to final production. Communicating ideas to art directors and teams. 2. Genre Exploration and Research Techniques Genre-Specific Design: Analyzing key genres (sci-fi, fantasy, post-apocalyptic, etc.) and how they influence prop and vehicle design. Identifying trends, styles, and visual cues for each genre. Research Methods: Collecting reference materials, mood boards, and inspiration for ideation. Drawing from real-world objects, vehicles, and historical designs. 3. Understanding Functionality and Real-World Mechanics Mechanics of Prop and Vehicle Design: Studying the functionality of real-world objects (e.g., guns, tools, transport vehicles). Integrating mechanical and structural elements into design for believability. Material Exploration: Realistic rendering of materials (metals, plastics, wood, etc.) through design. Using texture, wear, and detailing to add story elements to props and vehicles. 4. Thumbnailing and Silhouette Development Initial Design Phase: Creating quick thumbnails and silhouettes to explore ideas. Focusing on shape language for strong, recognizable designs. Iterative Design Process: Refining silhouettes to match functionality and aesthetic goals. Rapid iteration for visual clarity and uniqueness. 5. Technical Drawing and Orthographic Views Orthographic View Creation: Producing front, side, and top views to ensure accuracy in the design. Applying grid systems for proportional and functional consistency. Blueprinting for 3D Development: Translating designs into clear, functional orthographic drawings that can be used by modelers and engineers. Ensuring that designs can transition smoothly from 2D to 3D environments. 6. Vehicle Design: Mechanics and World-Building Vehicle Concept Development: Designing vehicles to fit specific worlds (e.g., futuristic, dystopian, fantasy). Balancing functionality with aesthetics (engine systems, cockpit layouts, weaponry, etc.). Environmental and Narrative Context: Designing vehicles that serve as storytelling devices within the environment (e.g., land, sea, space). Fitting vehicles to the needs of the narrative and the world s technological limitations. 7. Prop Design: Storytelling Through Detail Detailing and Storytelling in Props: Designing props that enhance character and plot (e.g., weapons, artifacts, tools). Using props to subtly reveal information about a world s culture, technology, or h istory. Wear and Tear: Rendering damage, age, and use to tell a story through the object's visual state. Creating props that feel lived-in and functional within a narrative. 8. Final Presentation and Professional-Level Portfolio Development Polishing Designs: Final rendering techniques for props and vehicles, focusing on lighting, texture, and material finishes. Creating presentation-ready artwork, including final orthographic views, dynamic poses, and renderings. Portfolio Preparation: Assembling a cohesive portfolio that demonstrates versatility in prop and vehicle design across genres. Best practices for presenting work to potential employers in the entertainment industry.

Lab Content

Project 1: Sci-Fi Adventure Genre: Science Fiction Story Concept: A team of explorers travels through deep space to investigate an alien world where advanced technology is intertwined with nature. Sci-Fi Prop and Vehicle Ideation Lab Activity: Thumbnailing props and vehicles related to space exploration (e.g., energy weapons, scanning devices, space suits, spacecraft). Focus: Strong silhouettes and futuristic designs. Deliverable: 10 15 thumbnails exploring the look and functionality of sci-fi props and vehicles. Mechanics and Functionality in Sci-Fi Design Lab Activity: Design technical aspects of a spacecraft, focusing on internal systems (cockpit, engines, weaponry). Focus: Blending real-world technology with

speculative, futuristic elements. Deliverable: Rough mechanical sketches of a sci-fi vehicle, emphasizing functional details. High-Tech Materials and Rendering Lab Activity: Render materials like metals, holographic displays, and synthetic fabrics. Focus: Realistic rendering techniques for futuristic materials and tech textures. Deliverable: Rendered sci-fi prop and vehicle designs with attention to material finishes. Final Sci-Fi Prop and Vehicle Presentation Lab Activity: Finalize the prop and vehicle designs, including orthographic views and polished renderings. Focus: Creating a professional concept sheet for the sci-fi genre. Deliverable: Full sci-fi prop and vehicle concept sheet, including a turnaround and final renders. Project 2: Fantasy Epic Genre: High Fantasy Story Concept: A magical kingdom is under threat, and heroes must wield enchanted weapons and ride mythical creatures to defend their realm. Fantasy Prop and Vehicle Ideation Lab A ctivity: Thumbnailing props and vehicles related to a fantasy setting (e.g., enchanted swords, spellbooks, flying creatures, horse-drawn carriages). Focus: Traditional, medieval-inspired designs with a magical twist. Deliverable: 10 15 thumbnails exploring fantasy props and transport designs. Magical Functionality and Lore Integration Lab Activity: Design a magical artifact or vehicle, focusing on how magic influences its form and function (e.g., glowing runes, levitating components). Focus: Integrating world-building and lore into the design. Deliverable: Detailed sketches of a magical prop or fantasy vehicle, with functionality explained through visuals. Material Rendering for Fantasy Settings Lab Activity: Render materials like ancient wood, enchanted metals, and glowing crystals. Focus: Creating believable, worn materials with a mystical quality. Deliverable: Rendered fantasy prop and vehicle designs with attention to material and texture. Final Fantasy Prop and Vehicle Presentation Lab Activity: Finalize prop and vehicle designs, including orthographic views and dynamic, action-oriented presentations. Focus: Presenting a cohesive, story-driven fantasy prop and vehicle design. Deliverable: Full fantasy prop and vehicle concept sheet, including turnarounds and final renderings. Project 3: Post-Apocalyptic Thriller Genre: Post-Apocalyptic Story Concept: In a dystopian future, survivors must navigate through a desolate, resource-depleted world, using makeshift weapons and modified vehicles to survive. Post-Apocalyptic Prop and Vehicle Ideation Lab Activity: Thumbnailing props and vehicles related to survival in a harsh environment (e.g., scavenged weapons, modified cars, survival kits). Focus: Functionality thr ough improvisation and resource scarcity. Deliverable: 10 15 thumbnails exploring post-apocalyptic props and vehicles. Scavenged Mechanics and Design Lab Activity: Design a post-apocalyptic vehicle or weapon, focusing on how scavenged parts are integrated into the design. Focus: Mechanical plausibility and visual storytelling through wear and repurposed materials. Deliverable: Rough mechanical sketches of a scavenged vehicle or weapon, emphasizing how it was modified for survival. Rendering Materials and Wear in a Post-Apocalyptic Setting Lab Activity: Render materials such as rusted metal, worn leather, and cracked glass. Focus: Showing the passage of time and rough conditions through material decay and damage. Deliverable: Rendered post-apocalyptic prop and vehicle designs, highlighting wear and tear. Final Post-Apocalyptic Prop and Vehicle Presentation Lab Activity: Finalize prop and vehicle designs, incorporating orthographic views, dynamic poses, and detailed storytelling elements. Focus: Presenting a fully realized post-apocalyptic prop or vehicle with a focus on survival aesthetics. Deliverable: Full post-apocalyptic prop and vehicle concept sheet, including turnarounds and final renderings.

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- Lab (04)
- DE Live Online Lab (04S)

Instructional Techniques

DemonstrationObservationIndividualized instructionStudent presentationsSupervise student use of equipmentShow instructional videosLectureDiscussionFeedback/evaluation of skills practice

Reading Assignments

Students will read on average 1-2 hours per week from assigned text and online resources.

Writing Assignments

Students will research assignments and provide analysis and reflection on content.

Out-of-class Assignments

Students will complete all assignments outside of class, and are expected to spend 1-2 hours per week on out-of-class assignments. Student will have access to the OCC Art/DMAD digital lab during their scheduled lab time and during open/arranged lab times.

Demonstration of Critical Thinking

Discriminate between visual treatments suited for various story driven themes. Analyze visual and verbal descriptions of assignment guidelines, developing theme and design through traditional media and digital software tools. Analyze instructor demos, and apply techniques towards completing assignment guidelines.

Required Writing, Problem Solving, Skills Demonstration

Reading and research assignments are given throughout the class that reinforce important concepts. Through the process of completing course assignments, problem solving skills and technical skills are put into practice.

Eligible Disciplines

Commercial art (sign making, lettering, packaging, rendering): Any bachelor's degree and two years of professional experience, or any associate degree and six years of professional experience.

Other Resources

1. Instructor identified videos and instructional tutorials will be listed in Canvas.