

PROGRAM FOCUS

QUARTERS 1-3

- ART106 Design Fundamentals
- ART108 Observational Drawing
- ART109 Image Manipulation
- ART111 Perspective Drawing
- ART114 Color Fundamentals
- CA115 Drawing and Anatomy
- CA120 Concepts II: Storyboarding
- CA233 Life Drawing and Gesture
- GAD100 Introduction to Game Development
- GAD110 Interactive Story Telling
- GAD130 Game Design and Game Play
- GD101 Digital Illustration I

QUARTERS 4-6

- CA215 2D Animation Principles
- CA230 3D Modeling
- CA251 Character and Object Design
- CA260 Background, Design and Layout
- CA265 3D Animation
- CA270 Hard Surface and Organic Modeling
- GAD235 Texture Mapping for Games
- GAD240 Material and Lighting
- GAD255 Interior Spaces and Worlds
- GAD275 Character and Game Modeling
- GAD310 Lighting and Texture

QUARTERS 7-9

- CA343 3D Character Rigging
- GAD300 Level Design
- GAD315 Programming for Artists
- GAD320 Advanced Level Design
- GAD325 Game Prototyping
- GAD330 Project Management for Game Art & Design
- GAD335 Sound Design for Games
- GAD340 Advanced Game Prototyping
- GAD345 Interface Design
- GAD350 Game Animation
- Program Elective

QUARTERS 10-12

- CD400 Career Development
- GAD400 Team Production Planning
- GAD405 Advanced 3D Animation
- GAD410 Team Production I
- GAD415 3D Scripting
- GAD420 Team Production II
- GAD425 Portfolio I
- GAD430 Portfolio II
- INT419 Internship
- Program Elective

GENERAL EDUCATION

- ARTS1303 Art History I
- ENGL1301 English Composition
- MATH1310 College Mathematics

- ARTS1304 Art History II
- Humanities English Elective
- Humanities History Elective

- PHYS1301 Physics
- PSYC2301 General Psychology
- SPCH1315 Public Speaking

- Mathematics and Science Elective
- Social Science Elective
- SOC1306 Social Problems

START DATE \_\_\_\_\_

LENGTH OF QUARTER \_\_\_\_\_

BREAKS BETWEEN QUARTERS \_\_\_\_\_

APPROX. HOURS IN CLASS PER WEEK \_\_\_\_\_

APPROX. HOURS OUTSIDE OF CLASS—HOMEWORK \_\_\_\_\_

Please visit our Student Consumer Information page to find the average time to completion for continuously enrolled students for each credential level offered. This data is available at the average credit load, full-time or at full load. Changing programs, beginning programs at the mid-term start date, taking remedial courses, taking time off from coursework, registering for fewer hours or unsuccessful attempts at course completion will increase the total length of the program and overall cost of education from what is disclosed. Transfer credits awarded toward your program will likely decrease the overall length and cost of education.

Course descriptions for elective and general education courses can be referenced in the catalog.

STUDENT CONSUMER INFORMATION:  
<https://www.artinstitutes.edu/austin/student-consumer-information>

This is a sample schedule only. Schedule subject to change without notice at the discretion of the school.

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073019

# Game Art & Design (BFA)

## COURSE DESCRIPTIONS

ART106

### DESIGN FUNDAMENTALS

This introductory course will explore the principles of design, and introduce and develop the creative process. Design elements and relationships will be identified and employed to establish a basis for aesthetic sensitivity and critical analysis.

Design will be presented as a tool of communication.

*Prerequisite: None*

*Credits: 3*

ART108

### OBSERVATIONAL DRAWING

This course involves the observation and translation of three-dimensional form into two-dimensional drawings. Starting with simple shapes and progressing to more complex organic forms, students will build skill levels in composition and line quality, through the use of tone, light, and shadow.

*Prerequisite: None*

*Credits: 3*

ART109

### IMAGE MANIPULATION

In this introduction to raster-based digital image manipulation, students become acquainted with the concepts, hardware, and software related to digital image acquisition, image editing, manipulation, color management basics, masking, layering, retouching, scanning, and output.

*Prerequisite: None*

*Credits: 3*

ART111

### PERSPECTIVE DRAWING

This course is a fundamental drawing course where the students will explore various art and media and learn to use a variety of drawing tools with an emphasis on perspective, where the students will draw three-dimensional objects in one-, two-, and three-point perspective.

*Prerequisite: None*

*Credits: 3*

ART114

### COLOR FUNDAMENTALS

This fundamental course will provide an introduction to the principles of color, and an exploration of color theory as it relates to design. Students will learn how to use color in both traditional and contemporary media, and to render color effects for print and electronic production methods. In addition, the psychological and cultural aspects of color will be explored, as well as their role in the design process.

*Prerequisite: None*

*Credits: 3*

CA115

### DRAWING AND ANATOMY

This course explores the fundamentals of drawing the human figure. Observation and rendering skills are developed, and the use of various drawing media is examined.

*Prerequisite: ART111 Perspective Drawing*

*Credits: 3*

CA120

### CONCEPTS II: STORYBOARDING

This course focuses on applying industry-standard storyboarding and scripting techniques to animation. Contents to be covered include the various principles and formats of storyboards, basic cinematic terminology and concepts used in storyboarding, and the application of storyboarding techniques to the creation of storyboards with or without a written script. Students will learn through process, practical research, critical analysis, brainstorming, and improvisational techniques to create ideas for effective animation.

*Prerequisite: CA110 Conceptual Storytelling, or GAD110 Interactive Storytelling*

*Credits: 3*

CA215

### 2D ANIMATION PRINCIPLES

Students will study timing and weight through a series of projects designed to demonstrate the principles of animation. Issues such as keyframing, in-betweening, and cycling will be addressed.

*Prerequisite: ART109 Image Manipulation*

*Credits: 3*

CA230

### 3D MODELING

Through critical analysis, the student will apply basic design principles to the solution of visual problems using elements of 3D design. The student will conceptualize 3D coordinate systems, construct 3D models, and apply them to geometric construction.

*Prerequisite: ART109 Image Manipulation*

*Credits: 3*

CA233

### LIFE DRAWING AND GESTURE

Students will focus on depicting gesture and motion, capturing the essence of movement and form in space. Students will simplify drawing through contour lines, generating impressions of form under time constraints, and expressing emotion through the use of abstract line, form and color.

*Prerequisite: CA115 Drawing and Anatomy*

*Credits: 3*

CA251

### CHARACTER AND OBJECT DESIGN

Students will design and draw characters for animation using lines to accurately delineate the form. Appropriate proportions and form for an animated character will be studied.

*Prerequisite: CA115 Drawing and Anatomy*

*Credits: 3*

CA260

### BACKGROUND, DESIGN AND LAYOUT

This course focuses on the fundamentals of background layout with an emphasis on perspective, composition, design basics, staging, mood, texture, and lighting. Students will also learn the basics of using props as background and foreground design elements.

*Prerequisite: ART109 Image Manipulation*

*Credits: 3*

CA265

### 3D ANIMATION

Students are introduced to basic 3D animation techniques. Topics to be covered include hierarchical linking, key framing, function curves, animated modifiers, basic morphing, animated cameras, and an introduction to character animation.

*Prerequisite: CA230 3D Modeling, or permission of the Academic Director or Program Coordinator*

*Credits: 3*

CA270

### HARD SURFACE AND ORGANIC MODELING

This course covers advanced modeling techniques used for building organic and hard surface objects and environments.

*Prerequisite: CA230 3D Modeling*

*Credits: 3*

CA343

### 3D CHARACTER RIGGING

This course is designed to introduce the student to fundamentals of character setup. The character setup will be tested by animation assignments. During the course, each student will create, set up, and test a character model.

*Prerequisite: CA340 Animation Dynamic Systems, or permission of the Academic Director or Program Coordinator*

*Credits: 3*

CD400

### CAREER DEVELOPMENT

This course prepares students for the business environment and the transition into an applied arts profession. It emphasizes the concepts of professionalism and an overall understanding of self-marketing in the field. Professional development tools are presented, including resume and cover letter writing, networking, and interviewing skills. Freelance business operating practices such as negotiations of contracts, pricing and estimation of services, ethical guidelines, and pertinent tax laws will be addressed.

*Prerequisite: None*

*Credits: 3*

GAD100

### INTRODUCTION TO GAME DEVELOPMENT

This course introduces students to the game industries. It will focus on entry-level employment opportunities and responsibilities, career paths, industry products, and their characteristics. The course will also expose students to the processes through which games are developed.

*Prerequisite: None*

*Credits: 3*

GAD110

### INTERACTIVE STORY TELLING

This course will focus on the aspects of interactive and multi-threaded storytelling. Narrative scripting techniques will also be taught. Scripts will be developed with an emphasis on characterization, plotting, target audience, messages, and script format.

*Prerequisite: ENGL1301 English Composition*

*Credits: 3*

GAD130

### GAME DESIGN AND GAME PLAY

A well-designed game is an integration of artistic and technological components that must have a clearly defined goal, set of game criteria, and rules for game play. Students learn the fundamentals of what makes a game enjoyable, playable, challenging, and marketable by creating a game document.

*Prerequisite: None*

*Credits: 3*

GAD235

### TEXTURE MAPPING FOR GAMES

In this class students will be introduced to the process of creating and working with textures for the game genre. Advanced image manipulation techniques will be learned and applied here.

Introduction to a shading network as it applies in a 3D software package will be explored.

*Prerequisite: CA230 3D Modeling*

*Credits: 3*

GAD240

### MATERIAL AND LIGHTING

In this class, students will be introduced to materials, textures, and lighting strategies to add detail and realism to objects without adding complexity to the model. Students will simulate real-world surfaces and textures.

*Prerequisite: CA230 3D Modeling*

*Credits: 3*

GAD255

### INTERIOR SPACES AND WORLDS

Most levels of popular games are designed as building interiors and contain characteristics common to interior design layouts. This course provides the opportunity for students to create architectural interiors representing houses, buildings, and entire worlds in which to place animation and game characters.

*Prerequisite: GAD240 Material and Lighting*

*Credits: 3*

GAD275

### CHARACTER AND GAME MODELING

Real-time 3D animation requires a thorough understanding and ability to create scenes and characters in such a way as to minimize the time it takes for a computer to redraw the scene as it moves in a game. Students will learn level detail creation techniques using industry-standard 3D modeling software and computers.

*Prerequisite: CA270 Hard Surfaces and Organic Modeling*

*Credits: 3*

GAD300

### LEVEL DESIGN

Using learned concepts from the game design and game play course, students analyze and extract level design needs. Students begin the process of determining the basic design elements and assets necessary to create a level.

*Prerequisite: GAD255 Interior Spaces and Worlds*

*Credits: 3*

GAD310

### LIGHTING AND TEXTURE

In this course, students will continue to develop lighting and texturing skills for Game Art & Design and carry out professional-quality lighting and texturing projects to be used for their portfolio.

*Prerequisite(s): GAD235 Texture Mapping for Games, GAD240 Material and Lighting*

*Credits: 3*

GAD315

### PROGRAMMING FOR ARTISTS

This course introduces basic scripting to extend the capabilities of the artist working in media applications. Students will be introduced to data structures, constructs, classes, and high level scripting languages. A functional application relating to their field of study will be produced utilizing a scripting language.

*Prerequisite: MATH1310 College Mathematics*

*Credits: 3*

GAD320

### ADVANCED LEVEL DESIGN

Create playable levels using an industry-standard level editor and tools. Emphasis is on implementation of the design and assets. Building on abilities gained in the GAD 300 Level Design course, students will create more intricate design elements.

*Prerequisite: GAD300 Level Design*

*Credits: 3*

GAD325

### GAME PROTOTYPING

In this course, students will perform as members of a pre-determined team to create a game level within an existing engine. Students will implement a preexisting design determined by the teacher to create the game environment.

*Prerequisite: GAD300 Level Design*

*Credits: 3*

GAD330

### PROJECT MANAGEMENT FOR GAME ART & DESIGN

A specialized project management course for Game Art & Design. Students learn to organize personnel, equipment, and a variety of other media assets for production purposes. Emphasis is placed upon skills and techniques for goal-setting, strategic planning, organization, communication, risk management, efficiency, and cost effectiveness. Legal aspects of the game production business are also covered.

*Prerequisite: GAD255 Interior Spaces and Worlds*

*Credits: 3*

GAD335

### SOUND DESIGN FOR GAMES

In this course, the student studies sound characteristics of digital games and explores the various methods for creating and adapting audio effects. Basic principles of acoustics, voice recording, music selection and editing and digital audio processes will be covered. Various sound design techniques within a gaming context and principles of audio fidelity, format conversion, and compression will be introduced. The student will create and assemble audio assets for a targeted project.

*Prerequisite: GAD325 Game Prototyping*

*Credits: 3*

GAD340

### ADVANCED GAME PROTOTYPING

In this course, students will perform as members of a pre-determined team to create a game level within an existing engine. Students will continue to develop a project that began in the GAD 325 Game Prototyping class by a different team of students. Final will be complete delivery of project through a presentation and use of marketing materials.

*Prerequisite: GAD325 Gam Prototyping*

*Credits: 3*

GAD345

### INTERFACE DESIGN

This course focuses on the nature and principles of interface design. Students will learn the functions of flowcharting, linking, branching, and the basic principles of interactivities between action and response. Students will develop a concept, produce a flowchart, and complete the design of an interface using principles of design aesthetics and usability.

*Prerequisite: GAD300 Level Design*

*Credits: 3*

GAD350

### GAME ANIMATION

This class explores game specific animation and how it is applied in real-time environments. It looks at creative solutions to handling constraints unique to individual game engines.

*Prerequisite: CA265 3D Animation*

*Credits: 3*

GAD400

### TEAM PRODUCTION PLANNING

During the course, students research a Game Art & Design topic and begin the preproduction process for their team projects. The emphasis is on quantitative and qualitative research, scheduling of the project, methods of presentation, and qualitative results.

*Prerequisite: GAD340 Advanced Game Prototyping*

*Credits: 3*

GAD405

### ADVANCED 3D ANIMATION

This course is the culmination of all modeling and animation courses. Students will create work based on understanding of modeling, animation and rigging.

*Prerequisite: GAD350 Game Animation*

*Credits: 3*

GAD410

### TEAM PRODUCTION I

This course will build upon the GAD400 Team Production Planning course. Students will either select or accept a specific role on the production team and, acting in a timely and professional capacity, ensure that the game project is completed. Students will create and refine the game production document, level designs, basic 2D art, and 3D models to be combined into a playable game demo in GAD420 Team Production II.

*Prerequisite: GAD400 Team Production Planning*

*Credits: 3*

Course descriptions describe the learning opportunities that are provided through the classroom and coursework. It is each student's responsibility to participate in the activities that will lead to successfully meeting the learning outcomes.

GAD415

### 3D SCRIPTING

This course applies scripting skills to a 3D engine in order to extend the capabilities of the artist in creating a prototype game or demonstration. Students will implement scripts to incorporate interface elements, alter in-game assets, and manipulate the in-game camera.

*Prerequisite: GAD405 Advanced 3D Animation*

*Credits: 3*

GAD420

### TEAM PRODUCTION II

This is a team production course. Under the guidance of an instructor, students will continue to work in teams and complete the game project started in GAD410 Team Production I.

*Prerequisite: GAD410 Team Production I*

*Credits: 3*

GAD425

### PORTFOLIO I

This course will focus on the refinement of previous work into a comprehensive collection representative of Game Art & Design skills. Emphasis will be on development, design, craftsmanship, and presentation. This course begins the process of examining the student's strengths and building upon them to produce a marketable portfolio.

*Prerequisite: GAD320 Advanced Level Design*

*Credits: 3*

GAD430

### PORTFOLIO II

This course focuses on the completion of a student's portfolio and enables the student to begin their career search. Students will present work for the portfolio, and will review and determine the quality of the work and make any enhancements necessary. The student will also complete several targeted, professional résumés and an extensive job search.

*Prerequisite: GAD425 Portfolio I*

*Credits: 3*

GD101

### DIGITAL ILLUSTRATION I

This course advances the students' understanding of the computer as an artist tool. Building on previous courses in drawing, concept development, and introductory computer-aided design, students will be asked to generate a number of expressive solutions that address specific illustrative problems, both technical and creative. As part of this course, students will be given the opportunity to develop their digital illustration skills by exploring numerous tools and techniques to obtain desired results.

*Prerequisite: None*

*Credits: 3*

INT419

### INTERNSHIP

Through a field internship experience, students will be able to apply their skills in a real and practical situation. The main objectives of the internship are to allow students the opportunity to observe and participate in the operation of successful businesses related to their fields of study. The students will gain the experience they need to enter the field when they graduate.

*Prerequisite: CD400 Career Development*

*Credits: 3*

### GENERAL EDUCATION REQUIREMENTS (All courses are 4 CREDITS):\*

ARTS1303	Art History I
ARTS1304	Art History II
ENGL1301	English Composition
MATH1310	College Mathematics
PHYS1301	Physics
PSYC2301	General Psychology
SOCI1306	Social Problems
SPCH1315	Public Speaking

### Humanities English Elective (choose one):

ENGL1302	Introduction to Literature
ENGL2307	Creative Writing
ENGL2311	Business Writing for Professionals
ENGL3511	Literature and Film Analysis

### Humanities History Elective (choose one):

HIST1301	U.S. History I
HIST1302	U.S. History II
HIST2321	World Civilizations I
HIST2322	World Civilizations II

### Mathematics and Science Elective (choose one):

BIOL1308	Biology
ENVR1401	Environmental Science
MATH4332	Mathematics for Decision Making

### Social Science Elective (choose one):

PSYC2319	Social Psychology
PSYC3019	Human Sexuality

\*Course descriptions for general education and elective courses can be found in the catalog.