

# GAME DESIGN & DEVELOPMENT

## Bachelor of Science in Game Design and Development

### Create interactive worlds that transcend devices and platforms.

Embark on an electrifying journey with the University of Arizona's STEM-designated Bachelor of Science in Game Design and Development (BSGDD), **offered on campus and online**. With the BSGDD, you'll master cutting-edge skills and gain hands-on experience in the world of game design and development, including conceptualization, market analysis, technical design and usability. Whether you aim to revolutionize entertainment, transform educational methods, innovate in training or pioneer new applications in healthcare, our BSGDD propels you to the forefront of becoming a top-tier game designer and developer. At the College of Information Science, you'll gain the hands-on computational, mathematical and technological foundation you need to analyze and extend the digital world, opening the door to a wide variety of careers at the intersection of information, people and technology.

### WHAT YOU'LL LEARN

- Game design for an array of purposes and industries
- Best practices in gamification, including challenges and fun factor, balancing, level design, scoring and progression, user interface interaction mechanics, narration, functionality, usability and playability
- Game development skills utilizing effective, industry-proven approaches, tools, systems, platforms and devices
- Research methods and presentation skills for data and information science
- Recognition and analysis of ethical and policy concerns raised by new technologies
- Effective communication across cultures and with diverse peoples and groups
- How to craft effective, ethical solutions for gamification and game design and development challenges

### CAREER POSSIBILITIES

BSGDD graduates are ready to excel in a wide variety of in-demand positions, including:

- |                                       |                                      |
|---------------------------------------|--------------------------------------|
| • 3D artist                           | • Game tester                        |
| • Application developer               | • Graphic designer                   |
| • Art director                        | • Mobile developer                   |
| • Computer-aided design (CAD) drafter | • Software developer                 |
| • Computer programmer                 | • Software quality assurance analyst |
| • Concept artist                      | • Video game designer                |
| • Game designer                       | • Web developer                      |

Ready to create interactive worlds that transcend devices and platforms?

[infosci.arizona.edu/bsgdd](https://infosci.arizona.edu/bsgdd)

[ischool-ugrad@arizona.edu](mailto:ischool-ugrad@arizona.edu)



## #22

Public Game Design  
School in the U.S.  
*Animation Career Review*

## \$95K

Average salary for game  
design and development  
bachelor's graduates\*

\* Average salary for game design and development bachelor's degree graduates according to Zippia, January 2024.

“Game development is world building. In our Game Design and Development program, students join a creative community, building transformative worlds together based on their skills and imagination.”

— Diana Daly  
Associate Professor of Practice



THE UNIVERSITY OF ARIZONA

College of  
Information Science

# BACHELOR OF SCIENCE IN GAME DESIGN AND DEVELOPMENT

## SAMPLE FOUR-YEAR PLAN

**120 units are required for graduation.** A minor with a minimum of 18 units, or a double major, is required.

In addition to the required foundation, general education and minor or double major courses, BSGDD students must also meet the following requirements to complete the degree: 22 units of Core Courses; 3 units of Research Methods / Data Analysis; 9 units of Game Design and Development Electives; and the 3-unit Senior Capstone (ISTA 498).

YEAR 1			
FALL		SPRING	
ENGL 101: First-Year Composition	3 units	ENGL 102: First-Year Composition	3 units
MATH (based on placement)	3 units	GAME 251: Introduction to Game Design	3 units
UNIV 101: Introduction to the General Education Experience	1 unit	General Education: Exploring Perspectives	3 units
General Education: Exploring Perspectives	3 units	General Education: Building Connections	3 units
First-Semester Language	4 units	Second-Semester Language	4 units
TOTAL	14 units	TOTAL	16 units
YEAR 2			
FALL		SPRING	
ISTA 116: Statistical Foundations of the Information Age	3 units	GAME 351: Game Programming	3 units
ISTA 130: Computational Thinking and Doing	4 units	Research Methods/Data Analysis	3 units
ISTA 161: Ethics in a Digital World	3 units	General Education: Building Connections	3 units
General Education: Exploring Perspectives	3 units	General Education: Building Connections	3 units
General Education: Exploring Perspectives	3 units	Minor Course	3 units
TOTAL	16 units	TOTAL	15 units
YEAR 3			
FALL		SPRING	
UNIV 301: General Education Portfolio	1 unit	GAME 425: Algorithms for Games	3 units
General Education: Building Connections	3 units	Major Elective Course	3 units
GAME 451: Game Development	3 units	Minor Course	3 units
Major Elective Course	3 units	Minor Course	3 units
Minor Course	3 units	Upper-Division Elective	3 units
Minor Course	3 units	TOTAL	15 units
TOTAL	16 units		
YEAR 4			
FALL		SPRING	
Major Elective Course	3 units	ISTA 498: Senior Capstone	3 units
Major Elective Course	3 units	Upper-Division Elective	3 units
Minor Course	3 units	Additional Elective Course	3 units
Upper-Division Elective	3 units	Additional Elective Course	3 units
Upper-Division Elective	3 units	Additional Elective Course	3 units
TOTAL	15 units	TOTAL	15 units
TOTAL DEGREE CREDITS: 122 UNITS			

This is a sample plan and is subject to change based on catalog year, placement tests, AP/CLEP credit, transfer work, minor requirements, summer school, etc. The official degree requirements may be found in the University General Catalog and all University of Arizona students should refer to the Academic Advising Report for specific graduation requirements.