

# Games + Simulation - Bachelor of Science

The Bachelor of Science in Games + Simulation provides students with an interdisciplinary plan of study covering all aspects of creating and interpreting games. Games are the liberal arts of the 21st century: the fusion of coding and design, writing and mechanics, usability and creativity. With a focus on making and praxis, the BS in Games + Simulation prepares students for a career or graduate study in game design, development, 3D modeling, creative development, writing or designing, esports, and games in other industries, all while encouraging students to take creative risks, to build things, and to think critically about audiences, narratives, and aesthetics.

## Program Requirements

Code	Title	Credit Hours
<b>Core: Foundation</b>		
IMS 111	Introduction to Game Careers	1
IMS 211	Introduction to Game Studies	3
IMS 212	Introduction to Game Design	3
IMS 213	Introduction to Game Development	3
IMS 222	Introduction to Interaction Design and Development	3
IMS 254	Design Thinking & Design Principles Applied	3
IMS 322	Intermediate Interaction Design and Development	3
<b>Core: Intermediate</b>		
CSE 251	Introduction to Game Programming	3
IMS 314	Game Usability & Human Factors	3
IMS 317	Writing for Games	3
IMS 319	Foundations in Digital 3-D Modeling and Animation	3
IMS 453	Indie Game Development I	3
IMS 454	Indie Game Development II	3
IMS 445	Advanced Game Design	3
IMS 465	Game Engine Scripting	3
<b>Core: Capstone</b>		
IMS 487	Game Prototyping, Pipeline and Production	3
IMS 488	Game Preproduction	3
IMS 489	Game Production	6
<b>Concentration (Choose One)</b>		<b>21</b>
Game Art Concentration		
ART 102		
ART 106		
ART 121	Observational Drawing	
ART 215	3D Digital Sculpting	
ART 218	3D Shading and Texturing	
ART 231	Painting I	
ART 305	3D Character Design	
IMS 391	3D Character Animation	
Game Development Concentration		

CSE 174	Fundamentals of Programming and Problem Solving
CSE 201	Introduction to Software Engineering
CSE 271	Object-Oriented Programming
CSE 274	Data Abstraction and Data Structures
CSE 386	Foundations of Computer Graphics and Games
CSE 389	Game Design and Implementation
CSE 489	Advanced Graphics and Game Engine Design
Game Studies Concentration	
IMS 225	Games and Learning
IMS 384	Rhetoric of Games
IMS 443	Research Methods in Games
WST 201	Self and Place
WST 301	Interdisciplinary Problems and Questions
Elective Course(s) Approved By Advisor	

**Total Credit Hours** **76**

### Optional Games electives for all concentrations

Code	Title	Credit Hours
IMS 102	Digital Experience Bootcamp	1
IMS 238	Narrative and Digital Technology	3
IMS 253	Building and Designing Interactive Devices	3
IMS 285	Inside the Game Developers Conference	2
IMS 381	Music for Games	3
IMS 382	The Business of Games	3
IMS 461	Virtual Reality	3

### Optional electives for Game Development concentration

Code	Title	Credit Hours
CSE 212	Software Engineering for User Interface and User Experience Design	3
CSE 302	Software Construction	3
CSE 464	Algorithms	3
CSE 486	Introduction to Artificial Intelligence	3