

Game Development Bachelor of Science

Degree Type

Bachelor of Science

Environment

campus

Program Length

88 weeks

Overview

The Game Development curriculum is designed to give you the programming skills and theory needed to excel in the world of game development. First, you will learn the details of a game development cycle from preproduction to finished product and begin to create simple games that will help to develop your programming and design skills. Then you will move into more complex and detailed tasks in courses such as Computer Graphics, Computer Architecture, Artificial Intelligence, and Software Engineering. Finally, you will focus these skills on a complete, playable game that you will design, develop, and produce from start to finish. This is part of a complete game development education that will get you ready to face the demands of the professional game world. In addition to learning the game development process, you will have courses focusing on probability, digital logic, and game architecture.

Objective

Bachelor's Objective The goal of the Game Development Bachelor of Science degree program is to provide you with the focused knowledge and understanding of game development useful in qualifying for entry-level industry positions as game programmers, tool builders, network programmers, I/O programmers, collision-detection developers, artificial-intelligence programmers, engine builders, and interface programmers. Completing this degree program will enhance your ability to create program code for 3-D graphic display, multiplayer gaming, artificially intelligent opponents, and real-time virtual environments. Additional skills developed in this program include the proper presentation of game docs as well as the math and physics required to model a realistic game world. In addition to technical proficiency and creative development, your education will help you develop critical-thinking, problem-solving, and analytical skills that contribute to lifelong learning, providing you with tools to help sustain a long and productive professional career in the entertainment and media industries.

Month 1

Code	Title	Credit Hours
GEN1011	Creative Presentation	3.0
DEP1013	Psychology of Play	3.0

Month 2

Code	Title	Credit Hours
TEM1001	Technology in the Entertainment and Media Industries	4.0
MAD1100	Discrete Mathematics	4.0

Month 3

Code	Title	Credit Hours
COP1334	Programming I	4.0

Month 4

Code	Title	Credit Hours
COP2334	Programming II	4.0

Month 5

Code	Title	Credit Hours
SDV3111	Systems Programming	4.0

Month 6

Code	Title	Credit Hours
COS119	Project and Portfolio I: Computer Science	3.0
ENC1101	English Composition I	4.0

Month 7

Code	Title	Credit Hours
GEN242	Linear Algebra	4.0
GDVC311	Professional Development Seminar I: Game Development	1.0

Month 8

Code	Title	Credit Hours
SDV2213	Data Structures and Algorithms	4.0

Month 9

Code	Title	Credit Hours
GEN262	Physics	4.0
GDVC322	Professional Development Seminar II: Game Development	1.0

Month 10

Code	Title	Credit Hours
GDD258	Software Engineering	4.0
SDV3012	Applied Human-Computer Interaction	3.0

Month 11

Code	Title	Credit Hours
GDB229	Project and Portfolio II: Game Development	3.0

Month 12

Code	Title	Credit Hours
GDB239	Project and Portfolio III: Game Development	3.0

Month 13

Code	Title	Credit Hours
COD3412	Digital Logic	4.0
COD3315	Computer Graphics	3.0

Month 14

Code	Title	Credit Hours
GDD291	Operating Systems	3.0
GDD245	3-D Content Creation	3.0

Month 15

Code	Title	Credit Hours
GEN3322	Probability	4.0
GDB349	Project and Portfolio IV: Game Development	3.0

Month 16

Code	Title	Credit Hours
COD3511	Computer Organization and Architecture	3.0
GDD379	Engine Development	4.0

Month 17

Code	Title	Credit Hours
COD3622	Information and Database Systems	3.0
CAP4053	Artificial Intelligence	4.0

Month 18

Code	Title	Credit Hours
COD3721	Computer Networks	3.0
GDB359	Project and Portfolio V: Game Development	3.0

Month 19

Code	Title	Credit Hours
GDD483	Game Architecture	3.0
HIS3320	Historical Archetypes and Mythology	4.0

Month 20

Code	Title	Credit Hours
GDB469	Project and Portfolio VI: Game Development	3.0

Month 21

Code	Title	Credit Hours
GDD4319	Game Integration	3.0

Month 22

Code	Title	Credit Hours
GDB479	Project and Portfolio VII: Game Development	3.0
CRR4000	Career Readiness	4.0
Total Credit Hours		120

Please Note

- Some specific courses may be offered online. Please see course descriptions for details.