Game Development Bachelor of Science

Degree Type
Bachelor of Science
Environment
online
Program Length
108 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

Month 2

Code	Title	Credit Hours
DEP1013	Psychology of Play	3.0

Month 3

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

Month 4

Code	Title	Credit Hours
MAD1100	Discrete Mathematics	4.0

Month 5

Code	Title	Credit Hours
COP1334	Programming I	4.0

Month 6

Code	Title	Credit Hours
COP2334	Programming II	4.0

Month 7

Code	Title	Credit Hours
SDV3111	Systems Programming	4.0

Month 8

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

Month 9

Code	Title	Credit Hours
SDV2213	Data Structures and Algorithms	4.0

Month 10

Code	Title	Credit Hours
GEN242	Linear Algebra	4.0

Month 11

Code	Title	Credit Hours
GDD258	Software Engineering	4.0
GEN262	Physics	4.0

Month 12

Code	Title	Credit Hours
SDV3012	Applied Human-Computer Interaction	3.0
GDV3111	Professional Development Seminar I: Game Development	1.0

Month 13

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

Month 14

Code	Title	Credit Hours
GDB239	Project and Portfolio III: Game Development	3.0
GDV3222	Professional Development Seminar II: Game Development	1.0

Month 15

Code	Title	Credit Hours
COD3412	Digital Logic	4.0

Month 16

Code	Title	Credit Hours
GDD291	Operating Systems	3.0
GEN3322	Probability	4.0

Month 17

Code	Title	Credit Hours
COD3511	Computer Organization and Architecture	3.0
COD3315	Computer Graphics	3.0

Month 18

Code	Title	Credit Hours
COD3622	Information and Database Systems	3.0

Month 19

Code	Title	Credit Hours
GDD245	3-D Content Creation	3.0

Month 20

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

Month 21

Code	Title	Credit Hours
GDD379	Engine Development	4.0
COD3721	Computer Networks	3.0

Month 22

Code	Title	Credit Hours
CAP4053	Artificial Intelligence	4.0

Month 23

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

Month 24

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

Month 25

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

Month 26

Code	Title	Credit Hours
GDD4319	Game Integration	3.0

Month 27

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