

PROGRAMS

SIMULATION AND GAME DEVELOPMENT

Contact(s): Adam Carriker

The Simulation and Game Development curriculum provides a broad background in simulation and game development with practical applications in creative arts, visual arts, audio/video technology, creative writing, modeling, design, programming, and management.

Students will receive hands-on training in design, 3D modeling, and programming for the purpose of creating simulations and games.

Graduates should qualify for employment as designers, artists, animators, programmers, testers, quality assurance analysts, engineers, and administrators in the entertainment industry, healthcare, education, and government organizations.

Learning Outcomes

Upon completion of this program, students will be able to:

- Demonstrate advanced skill in one specialty area of simulation and game development.
- Design and plan an advanced simulation or game.
- Construct a playable simulation or game level.
- Create an animation for a simulation or game.
- Demonstrate proficiency in game programming.
- Generate cinematic sequences.
- Model a simulation or game object.

Simulation and Game Development Degree – A25450

First Year		
Fall		Credit Hours
ACA 111	College Student Success	1
CIS 110	Introduction to Computers	3
ENG 111	Writing and Inquiry	3
SGD 111	Introduction to Simulation and Game	3
SGD 114	SGD 3D Modeling I	3
SGD 116	SGD Graphic Design Tools	3
	Credit Hours	16
Spring		Credit Hours
MAT 143 or MAT 171	Quantitative Literacy Precalculus Algebra	3-4
SGD 112	SGD Design I	3
SGD 165	SGD Character Development	3
SGD 214	SGD 3D Modeling II	3
	Credit Hours	12-13
Summer		Credit Hours
Humanities elective *		3
Social Science elective *		3
	Credit Hours	6
Second Year		
Fall		Credit Hours
CIS 115	Introduction to Programming and Logic	3
CTS 115	Information Systems Business Concepts	3
ENG 112	Writing and Research in the Disciplines	3

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or ENG 114	Professional Research & Reporting	
SGD 161	SGD 2D Animation	3
SGD 212	Simulation and Game Development	3
	Credit Hours	15
Spring		Credit Hours
CSC 134	C++ Programming	3
SGD 162	SGD 3D Animation I	3
SGD 244	SGD 3D Modeling III	3
SGD 289	Simulation and Game Development Project	3
Technical elective*		3
	Credit Hours	15
	Total Credit Hours	64-65

Technical Electives

Courses		Credit Hours
DES 125	Visual Presentation I	2
DES 135	Principles and Elements of Design I	4
DFT 151	CAD I	3
GRD 141	Graphic Design I	4
GRD 151	Computer Design Basics	3
NET 110	Networking Concepts	3
NET 125	Introduction to Networks	3
NOS 110	Operating Systems Concepts	3
SGD 116	SGD Graphic Design Tools	3
SGD 165	SGD Character Development	3
WEB 110	Web Development Fundamentals	3
WEB 111	Introduction to Web Graphics	3
WEB 120	Introduction to Internet Multimedia	3

Simulation & Game Development Part-time Pathway

Term 1		Credit Hours
ACA 111	College Student Success	1
SGD 111	Introduction to Simulation and Game	3
SGD 114	SGD 3D Modeling I	3
	Credit Hours	7
Term 2		Credit Hours
SGD 112	SGD Design I	3
SGD 214	SGD 3D Modeling II	3
	Credit Hours	6
Term 3		Credit Hours

Humanities elective*		3
	Credit Hours	3
Term 4		Credit Hours
SGD 161	SGD 2D Animation	3
SGD 212	Simulation and Game Development	3
	Credit Hours	6
Term 5		Credit Hours
SGD 162	SGD 3D Animation I	3
SGD 244	SGD 3D Modeling III	3
	Credit Hours	6
Term 6		Credit Hours
CIS 110	Introduction to Computers	3
	Credit Hours	3
Term 7		Credit Hours
ENG 111	Writing and Inquiry	3
SGD 116	SGD Graphic Design Tools	3
	Credit Hours	6
Term 8		Credit Hours
CSC 134	C++ Programming	3
SGD 165	SGD Character Development	3
	Credit Hours	6
Term 9		Credit Hours
Social Science Elective*		3
	Credit Hours	3
Term 10		Credit Hours
CIS 115	Introduction to Programming and Logic	3
CTS 115	Information Systems Business Concepts	3
	Credit Hours	6
Term 11		Credit Hours
SGD 289	Simulation and Game Development Project	3
Technical Elective*		3
	Credit Hours	6
Term 12		Credit Hours
ENG 112	Writing and Research in the Disciplines	3
MAT 143 or MAT 171	Quantitative Literacy Precalculus Algebra	3-4
	Credit Hours	6-7
	Total Credit Hours	64-65

Simulation and Game Development Novice Game Design Certificate - C25450NG

Courses		Credit Hours
ACA 111	College Student Success	1
CIS 110	Introduction to Computers	3
SGD 111	Introduction to Simulation and Game	3
SGD 114	SGD 3D Modeling I	3
SGD 116	SGD Graphic Design Tools	3
	Total Credit Hours	13

Simulation and Game Development Advanced Game Design Certificate - C25450AG

Courses		Credit Hours
ACA 111	College Student Success	1
SGD 112	SGD Design I	3
SGD 161	SGD 2D Animation	3
SGD 165	SGD Character Development	3
SGD 214	SGD 3D Modeling II	3
	Total Credit Hours	13

Simulation and Game Development Expert Game Design Certificate - C25450EG

Courses		Credit Hours
ACA 111	College Student Success	1
CSC 134	C++ Programming	3
SGD 162	SGD 3D Animation I	3
SGD 212	Simulation and Game Development	3
SGD 244	SGD 3D Modeling III	3
	Total Credit Hours	13

Simulation and Game Development - CCP

Courses		Credit Hours
CSC 134	C++ Programming	3
SGD 111	Introduction to Simulation and Game	3
SGD 112	SGD Design I	3
SGD 114	SGD 3D Modeling I	3
	Total Credit Hours	12