

SIMULATION AND GAME DEVELOPMENT

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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 - Associate in Applied Science (p. 1)
- Simulation and Game Development Novice Game Design Certificate (p. 2)
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- Simulation and Game Development Expert Game Design Certificate (p. 2)
- Simulation and Game Development - CCP (p. 2)

Simulation and Game Development – Associate in Applied Science – A25450

Course	Title	Credit Hours
First Year		
Fall		
ACA 111	College Student Success	1
CIS 110	Introduction to Computers	3
SGD 111	Introduction to Simulation and Game Development	3
SGD 116	Graphic Design Tools	3
SGD 114	3D Modeling	3

ENG 111	Writing and Inquiry	3
Credit Hours		16

Spring

MAT 143 or MAT 171	Quantitative Literacy or Precalculus Algebra	3-4
SGD 214	3D Modeling II	3
SGD 112	Simulation and Game Development Design	3
SGD 165	Simulation and Game Character Development	3
Credit Hours		12-13

Summer

Humanities Elective *		3
Social Science Elective *		3
Credit Hours		6

Second Year

Fall

CTS 115	Information Systems Business Concepts	3
SGD 161	Simulation and Game Animation	3
ENG 112 or ENG 114	Writing and Research in the Disciplines or Professional Research & Reporting	3
SGD 212	Simulation and Game Development Design II	3
CIS 115	Introduction to Programming and Logic	3
Credit Hours		15

Spring

SGD 162	Simulation and Game 3-D Animation	3
SGD 289	Simulation and Game Development Project	3
SGD 244	3D Modeling III	3
CSC 134	C++ Programming	3
Technical Elective		3
Credit Hours		15
Total Credit Hours		64-65

Technical Electives

Code	Title	Credit Hours
Take 3 credits from the following:		
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	Graphic Design Tools	3
SGD 165	Simulation and Game Character Development	3
WEB 110	Internet/Web Fundamentals	3
WEB 111	Introduction to Web Graphics	3
WEB 120	Introduction to Internet Multimedia	3

*Please see the Suggested Humanities and Social/Behavioral Science Elective List for AAS Majors webpage.

Simulation and Game Development Novice Game Design Certificate - C25450NG

Student Projects (<https://www.stanly.edu/future-students/educational-offerings/simulation-and-game-development/student-projects-sgd>)

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

Simulation and Game Development Advanced Game Design Certificate - C25450AG

Code	Title	Credit Hours
ACA 111	College Student Success	1
SGD 112	Simulation and Game Development Design	3
SGD 214	3D Modeling II	3
SGD 165	Simulation and Game Character Development	3
SGD 161	Simulation and Game Animation	3
Total Credit Hours		13

Simulation and Game Development Expert Game Design Certificate - C25450EG

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

Simulation and Game Development - CCP

Tuition-waived program for Career & College Promise (<https://www.stanly.edu/future-students/career-college-promise>) (high school juniors and seniors)

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