

# Simulation and Game Development Programs

## Simulation and Game Development (A25450)

### Associate in Applied Science Degree

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, software engineering, database administration and programming for the purpose of creating simulations and games.

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

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 52 or speak to a program advisor.

	Class	Lab	Clinic	Work Exp.	Credit
<b>Fall Semester</b>					
ACA 115	Success and Study Skills	0	2	0	1
Or					
ACA 122	College Transfer Success	0	2	0	1
ENG 111	Writing and Inquiry	3	0	0	3
SGD 111	Introduction to SGD	2	3	0	3
SGD 113	SGD Programming	2	3	0	3
SGD 114	3D Modeling	2	3	0	3
SGD 116	Graphic Design Tools	2	2	0	3
	Subtotal				(16)
<b>Spring Semester</b>					
ENG 114	Prof. Research and Reporting	3	0	0	3
SGD 112	SGD Design	2	3	0	3
SGD 117	Art for Games	2	3	0	3
SGD 213	SGD Programming II	2	3	0	3
SGD 214	3D Modeling II	2	3	0	3
	Subtotal				(15)
<b>Summer Term</b>					
SGD 162	SG 3D Animation	2	3	0	3
SGD 237	Rigging 3D Models	2	3	0	3
	Social/Behavioral Science Elective**				3
	Subtotal				(9)
<b>Fall Semester</b>					
ART 131	Drawing I	0	6	0	3
SGD 174	SG Level Design	2	3	0	3
SGD 212	SGD Design II	2	3	0	3
	Humanities Elective**				3
	Major Course Elective***				3
	Subtotal				(15)

### Spring Semester

MAT 143	Quantitative Literacy	2	2	0	0	3
SGD 135	Serious Games	3	0	0	0	3
SGD 288	SGD Portfolio Design	1	2	0	0	2
SGD 289	SGD Project	2	3	0	0	3
	Major Course Elective***					3
	Subtotal					(14)

\* Humanities Electives are to be selected from the courses listed on page 52. ART 114 or ART 115 is strongly recommended.

\*\* Social/Behavioral Science Electives are to be selected from the courses listed on page 52.

\*\*\*Major Course Electives are to be selected from the following:

BUS 110	Introduction to Business	3	0	0	0	3
CSC 134	C++ Programming	2	3	0	0	3
CSC 151	Java Programming	2	3	0	0	3
CSC 153	C# Programming	2	3	0	0	3
SGD 165	SG Character Development	2	3	0	0	3
SGD 168	Mobile SG Programming I	2	3	0	0	3
SGD 172	Virtual SG Environments	2	3	0	0	3
SGD 244	3D Modeling III	2	3	0	0	3
SGD 274	SG Level Design II	2	3	0	0	3
SGD 285	SG Software Engineering	2	3	0	0	3

**Total Semester Credit Hours in Program.....69**

## Simulation and Game Development (D25450) Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 52 or speak to a program advisor.

	Class	Lab	Clinic	Work Exp.	Credit
<b>Fall Semester</b>					
ACA 115	Success and Study Skills	0	2	0	1
Or					
ACA 122	College Transfer Success	0	2	0	1
ENG 111	Writing and Inquiry	3	0	0	3
SGD 111	Introduction to SGD	2	3	0	3
SGD 113	SGD Programming	2	3	0	3
SGD 114	3D Modeling	2	3	0	3
SGD 116	Graphic Design Tools	2	2	0	3
	Subtotal				(16)
<b>Spring Semester</b>					
ENG 114	Prof. Research and Reporting	3	0	0	3
SGD 112	SGD Design	2	3	0	3
SGD 117	Art for Games	2	3	0	3
SGD 213	SGD Programming II	2	3	0	3
SGD 214	3D Modeling II	2	3	0	3
	Subtotal				(15)
<b>Summer Term</b>					
SGD 162	SG 3D Animation	2	3	0	3
SGD 112	SGD Design	2	3	0	3
	Major Course Elective***				3
	Subtotal				(9)
<b>Summer Term</b>					
SGD 162	SG 3D Animation	2	3	0	3
	Subtotal				(3)
<b>Fall Semester</b>					
ART 131	Drawing I	0	6	0	3
SGD 174	SG Level Design	2	3	0	3
SGD 212	SGD Design II	2	3	0	3
	Subtotal				(9)

\*\*\*Major Course Electives are to be selected from the following:

SGD 117	Art for Games	2	3	0	0	3
SGD 213	SGD Programming II	2	3	0	0	3
SGD 214	3D Modeling II	2	3	0	0	3

**Total Semester Credit Hours in Program..... 37**

**Simulation and Game Development –  
Character Design (C25450C)  
Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 52 or speak to a program advisor.

	Class	Lab	Clinic	Work	Credit	
				Exp.		
<b>Fall Semester</b>						
ACA 115	Success and Study Skills	0	2	0	0	1
	Or					
ACA 122	College Transfer Success	0	2	0	0	1
SGD 114	3D Modeling I	2	3	0	0	3
SGD 116	Graphic Design Tools	2	2	0	0	3
	Subtotal					(7)
<b>Spring Semester</b>						
ART 131	Drawing I	0	6	0	0	3
SGD 165	SG Character Development	2	3	0	0	3
	Subtotal					(6)
<b>Fall Semester</b>						
SGD 117	Art for Games	2	3	0	0	3
	Subtotal					(3)

**Total Semester Credit Hours in Program..... 16**

**Simulation and Game Development –  
Game Art (C25450A)  
Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 52 or speak to a program advisor.

	Class	Lab	Clinic	Work	Credit	
				Exp.		
<b>Fall Semester</b>						
ACA 115	Success and Study Skills	0	2	0	0	1
	Or					
ACA 122	College Transfer Success	0	2	0	0	1
SGD 111	Introduction to SGD	2	3	0	0	3
SGD 114	3D Modeling I	2	3	0	0	3
SGD 116	Graphic Design Tools	2	2	0	0	3
	Subtotal					(10)
<b>Spring Semester</b>						
ART 131	Drawing I	0	6	0	0	3
SGD 117	Art for Games	2	3	0	0	3
	Subtotal					(6)

**Total Semester Credit Hours in Program..... 16**

**Simulation and Game Development -  
Game Design (C25450)  
Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 52 or speak to a program advisor.

	Class	Lab	Clinic	Work	Credit	
				Exp.		
<b>Fall Semester</b>						
SGD 111	Introduction to SGD	2	3	0	0	3
SGD 113	SGD Programming	2	3	0	0	3
	Subtotal					(6)
<b>Spring Semester</b>						
SGD 112	SGD Design	2	3	0	0	3
	Subtotal					(3)
<b>Fall Semester</b>						
SGD 114	3D Modeling	2	3	0	0	3
SGD 174	SG Level Design	2	3	0	0	3
SGD 212	SGD Design II	2	3	0	0	3
	Subtotal					(9)

**Total Semester Credit Hours in Program..... 18**

**Simulation and Game Development –  
Game Programming (C25450B)  
Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 52 or speak to a program advisor.

	Class	Lab	Clinic	Work	Credit	
				Exp.		
<b>Fall Semester</b>						
ACA 115	Success and Study Skills	0	2	0	0	1
	Or					
ACA 122	College Transfer Success	0	2	0	0	1
SGD 111	Introduction to SGD	2	3	0	0	3
SGD 113	SGD Programming	2	3	0	0	3
	Subtotal					(7)
<b>Spring Semester</b>						
SGD 213	SGD Programming II	2	3	0	0	3
	Subtotal					(3)
<b>Fall Semester</b>						
SGD 174	SG Level Design	2	3	0	0	3
SGD 285	SG Software Engineering	2	3	0	0	3
	Subtotal					(6)

**Total Semester Credit Hours in Program..... 16**

## Simulation and Game Development – Modeling (C25450M) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 52 or speak to a program advisor.

			Class	Lab	Clinic	Work	Credit	
						Exp.		
<b>Fall Semester</b>								
ACA	115	Success and Study Skills	0	2	0	0	1	
		Or						
ACA	122	College Transfer Success	0	2	0	0	1	
SGD	114	3D Modeling I	2	3	0	0	3	
SGD	116	Graphic Design Tools	2	2	0	0	3	
		Subtotal					(7)	
<b>Spring Semester</b>								
SGD	214	3D Modeling II	2	3	0	0	3	
		Subtotal					(3)	
<b>Fall Semester</b>								
SGD	244	3D Modeling III	2	3	0	0	3	
ART	131	Drawing I	0	6	0	0	3	
		Or						
		***See Below						
		Subtotal					(3-6)	
<b>Spring Semester</b>								
		Major Course Elective***					3	
		Subtotal					(0-3)	

\*\*\*Major Course Electives are to be selected from the following:

**If ART 131 was not taken in the 2nd Fall Semester, SGD 165 or SGD 172 should be taken the 2nd Spring Semester**

ART	131	Drawing I	0	6	0	0	3	
SGD	165	SG Character Development	2	3	0	0	3	
SGD	172	Virtual SG Environments	2	3	0	0	3	

**Total Semester Credit Hours in Program..... 16**