Computer Game and Simulation Development – Programming Track A.S. (CGPS)

This degree is designed for students preparing to enter a program leading to a baccalaureate degree at a four-year college or university. Game design and development course work along with programming skills in scripting languages, C++, and Objective-C may lead the graduate into programs of study including Game Programming and Simulation Development, Computer Science, Information Systems, or other technology degrees. Students utilize industry-standard development environments, two-dimensional graphics software, scripting languages, as well as two- and three dimensional game engines to develop games and simulations in a team environment for both the personal computer and mobile platforms. Effective project management techniques are used as games are developed collaboratively.

Upon successful completion of this program, graduates will be able to:

- create visual artistic assets for use in computer games and simulation projects often developed collaboratively with the Digital Art Track students.
- design and program user experiences in computer video games from concept to completion using two- and three-dimensional game engines in a team-based work environment using appropriate project management strategies.
- design engaging mechanics and systems for game projects.

Students should consult the catalog of the four-year college or university to which he or she plans to transfer to ensure that degree requirements are being properly met. Transfer information for this program is on file in the Transfer and University Center. For more information, contact an academic advisor or counselor.

First Semester — **Credits**

Course	Title	Credits
ART 107	Digital Design	3
CIS 105	Introduction to Computers and Applications	3
CIS 112	Computational Thinking and Programming Logic	3
CIS 119	College Survival Bootcamp	1
CIS 180	Introduction to Project Management	3
ENG 105	Research and Composition	3
		16

Second Semester

Course	Title	Credits
ART 118	2D Game and Simulation Graphics	3.5
CIS 118	Game and Simulation Programming Fundamentals	3.5
CIS 133	User Experience Design	3
ENG 106	Introduction to Literature	3
Elective*	Mathematics	3-4
		16

Third Semester

Course	Title	Credits
CIS 114	Introduction to Game Design	3
CIS 155	Introduction to Computer Science – Structured Programming C++	3.5
CIS 181	3D Game and Simulation Programming	3.5
Elective	Humanities/Social Science	3
		13

Fourth Semester

Course	Title	Credits
Elective	Physics	4
DMP 116	Sound Design for Animation	3
CIS 165	Data Structures – C++	3.5
Elective	Humanities/Social Science	6
		16.5
	Credit Total	**61.5**

*Mathematics 121 does not satisfy this requirement. Student must select the Mathematics elective from MAT 105 or higher, except MAT 121.

Prior Learning Assessment: Previous job training, certificates and work experience that may qualify for college credit *(see academic advisor).*

Gateway Courses: Based on placement testing in reading, writing and math, these prerequisite courses may have to be taken before placement in College English or Mathematics beginning the first semester and concurrently.

Course	Title	Credits
RSS 099	Basic Skills Reading	3
RSS 100	Critical Reading	3
ENG 099	Basic Skills Writing	3
ENG 100	Fundamentals of Writing	3
MAT 090	Mathematical Literacy	6
ESL 251	English for Academic Purpose	6
	(Required for ESL students only.)	

Please note, taking gateway courses will increase your time for completion.