

Game Development, AAS

The game development associate of applied science degree provides students with the focused knowledge and understanding of game design and development useful in qualifying for entry-level industry positions as game programmers, tool builders, collision detection developers, engine builders and interface programmers as well as video and online training developers, Q/A (Question/Answer) Testers, customer supporters and simulations developers. Completion of this degree program will greatly enhance students' ability to create code for 2D/3D graphics and real-time virtual environments. Additional skills will include an understanding of game ethics, of the proper presentation of "game bibles" and of math and physics required to model a realistic game world.

(Major Code 2650; CIP Code 50.0411)

Game Development Program web page (<http://www.jccc.edu/academics/credit/game-development/>)

Associate of Applied Science Degree

First Semester

Code	Title	Hours
CIS 142	Beginning Programming using Python	4
ENGL 121	Composition I*	3
GAME 102	The Business of Games	3
GAME 104	Introduction to Game Development	1
GAME 105	Beginning Game Creation	3
MATH 171	College Algebra* (or higher)	3
Total Hours		17

Second Semester (Game Programming Option)

Code	Title	Hours
CS 201	Concepts of Programming Algorithms using C#*	4
GAME 121	Game Programming I*	4
GAME 131	User-Centered Design*	4
GAME 180	Artificial Intelligence for Games*	3
Social and Behavioral and Sciences Elective ^		3
Total Hours		18

Second Semester (Game Design Option)

Code	Title	Hours
GAME 120	Game Design I*	4
GAME 132	Game Level Editing*	4
GAME 136	Game Prototyping*	4
GAME 180	Artificial Intelligence for Games*	3
Social and Behavioral and Sciences Elective ^		3
Total Hours		18

Third Semester (Game Programming Option)

Code	Title	Hours
CS 236	Object-Oriented Programming Using C#*	4
GAME 221	Game Programming II*	4
GAME 242	Agile Game Development*	3
MATH 191	Math and Physics for Games I*	4
or PHYS 191	Math and Physics for Games I*	
Total Hours		15

Third Semester (Game Design Option)

Code	Title	Hours
GAME 134	Game World Creation*	4
GAME 220	Game Design II*	4
GAME 235	Game Quality Assurance*	2
GAME 242	Agile Game Development*	3
Humanities Elective ^		3
NOTE: HUM 155 or HUM 156 is recommended		
Total Hours		16

Fourth Semester (Game Programming Option)

Code	Title	Hours
Program Elective (see below)		3
COMS 120	Interpersonal Communication	3
or COMS 121	Public Speaking	
or COMS 125	Personal Communication	
GAME 250	Game Capstone*	4
GAME 255	Mobile Game Programming*	4
Humanities Elective ^		3
NOTE: HUM 155 or HUM 156 is recommended		
Total Hours		17

Fourth Semester (Game Design Option)

Code	Title	Hours
Program Elective (see below)		3
COMS 120	Interpersonal Communication	3
or COMS 121	Public Speaking	
or COMS 125	Personal Communication	
ENGL 150	Digital Narratives*	3
GAME 238	Serious Game Design*	3
GAME 250	Game Capstone*	4
Total Hours		16

Total Program Hours: 67

Program Electives

Code	Title	Hours
ENGL 150	Digital Narratives*	3
GAME 120	Game Design I*	4
GAME 121	Game Programming I*	4
GAME 131	User-Centered Design*	4
GAME 132	Game Level Editing*	4
GAME 134	Game World Creation*	4
GAME 136	Game Prototyping*	4
GAME 220	Game Design II*	4
GAME 221	Game Programming II*	4
GAME 235	Game Quality Assurance*	2
GAME 238	Serious Game Design*	3
GAME 255	Mobile Game Programming*	4
GAME 292	Special Topics:*	3

* This course has a registration requirement.

^ See all AAS general education electives (<https://catalog.jccc.edu/archives/2024-25/degree requirements/associate-applied-science/>).