

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; State CIP Code 50.0411)

- Game Development (<http://www.jccc.edu/academics/computers/game-development>)

Associate of Applied Science Degree

First Semester

| | | |
|-------------|------------------------------------|----|
| 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* | 3 |
| Total Hours | | 17 |

Second Semester (Game Programming Option)

| | | |
|--|--|----|
| 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 Science and/or Economics Elective ^ | | 3 |
| Total Hours | | 18 |

^ See all AAS general education electives (<http://catalog.jccc.edu/degreerequirements/associate-applied-science>)

Second Semester (Game Design Option)

| | | |
|--|------------------------------------|----|
| 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 Science and/or Economics Elective ^ | | 3 |
| Total Hours | | 18 |

^ See all AAS general education electives (<http://catalog.jccc.edu/degreerequirements/associate-applied-science>)

Third Semester (Game Programming Option)

| | | |
|-------------|---------------------------------------|----|
| 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 Physics for Games I* | |
| Total Hours | | 15 |

Third Semester (Game Design Option)

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|----------|----------------------|---|
| 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 |

^ See all AAS general education electives (<http://catalog.jccc.edu/degreerequirements/associate-applied-science>)

Fourth Semester (Game Programming Option)

| | | |
|---|-----------------------------|----|
| Game Elective (see list below) | | 3 |
| GAME 250 | Game Capstone* | 4 |
| GAME 255 | Mobile Game Programming* | 4 |
| SPD 120 | Interpersonal Communication | 3 |
| or SPD 121 | Public Speaking | |
| or SPD 125 | Personal Communication | |
| Humanities Elective | | 3 |
| NOTE: HUM 155 or HUM 156 is recommended | | |
| Total Hours | | 17 |

^ See all AAS general education electives (<http://catalog.jccc.edu/degreerequirements/associate-applied-science>)

Fourth Semester (Game Design Option)

| | | |
|--------------------------------|-----------------------------|----|
| Game Elective (see list below) | | 3 |
| ENGL 150 | Digital Narratives* | 3 |
| GAME 238 | Serious Game Design* | 3 |
| GAME 250 | Game Capstone* | 4 |
| SPD 120 | Interpersonal Communication | 3 |
| or SPD 121 | Public Speaking | |
| or SPD 125 | Personal Communication | |
| Total Hours | | 16 |

Game Electives

| | | |
|----------|--------------------------|---|
| 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 |

Total Program Hours: 67