

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/degree requirements/associate-applied-science/>).