

INFORMATION TECHNOLOGY, GAME DEVELOPMENT, ASSOCIATE IN APPLIED SCIENCE (ITGD)

Effective: Fall 2016

The Game Development specialization is intended to prepare students for a career or further study in game development. Courses emphasize the specific skills necessary for the design, development, marketing and testing of computer games. Industry standard programming languages and development tools are utilized in this specialization.

The Associate in Applied Sciences in the Information Technology (IT) Career Degrees at Delaware County Community College blends the theoretical with the practical. Students are offered a choice of specializations: Computer Programming, Game Development, Help Desk/Technical Support, Interactive Multimedia, Network Engineering, Mobile Computing and Web Development. Students have the benefit of classroom or online instruction, dedicated laboratory facilities and participation in co-curricular activities. Students in the IT Career Degrees are required to take program courses and related electives in their specialization as well as four IT core courses. In addition, students are required to take general education courses.

Program Outcomes

- Demonstrate the use of web and programming languages relevant to game development.
- Apply the computer video game development process to create games using a variety of current tools and technologies.
- Create computer games using industry standard development tools.
- Utilize industry standard tools to create audio and/or visual elements.
- Develop a game portfolio.

Full-Time Academic Plan

First Semester	Hours
CS 100 Introduction to Information Technology	3
CS 117 Fundamentals of Game Design Theory and Practice	3
CS 101 Introduction to Computer Science	3
ENG 100 English Composition I	3
Select one of the following:	3-4
MAT 120 Modern College Mathematics	
MAT 121 Introduction to Probability and Statistics	
MAT 135 Business Precalculus	
MAT 151 College Algebra	
MAT 160 Calculus I	
Hours	15-16
Second Semester	Hours
IMM 120 Web Page Design and Development	3
CS 118 Game Creation Development	3
ENG 112 English Composition II: Writing About Literature	3
CS 104 Introduction to Java Programming or CS 110 Introduction to C++	3
Mathematics Elective	3-4
Hours	15-16
Third Semester	Hours
CS 119 Introduction to Computer Game Programming	3

NET 110 Network Communications	3
IMM 201 Audio and Video for Multimedia	3
CS 106 Art and Animation or IMM 110 or Multimedia Graphics & Design	3
CS 204 Intermediate Java Programming or CS 210 or Object Oriented C++	3
Hours	15
Fourth Semester	Hours
CS 250 Digital Portfolio Development	3
Any transferable Scientific Inquiry (SI) designated Science course	4
Arts & Humanities Elective	3
Any transferable Oral Communication (OC) designated course	3
Any transferable Diversity and Social Justice (DJ) and Global Understanding (GU) designated Social Science course	3
Hours	16
Total Hours	61-63

Notes

Scientific Inquiry designated courses (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#SR_Course_List).

Oral Communication designated courses (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#OC_Course_List).

Diversity and Social Justice and Global Understanding designated courses (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#Dual_DJ_GU_CourseList).

Arts and Humanities Electives

This list does not indicate College Academic Learning Goal designation (<https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/>). Refer to your program curriculum for more information.

The subject areas listed are generally transferable to most institutions. However, transferability is always determined by the college or university you are planning to transfer to. Be sure to meet with a transfer advisor before making your course selections.

- ART - Art (<https://catalog.dccc.edu/courses/course-descriptions/art/>)
- COMM - Communication Studies (<https://catalog.dccc.edu/courses/course-descriptions/comm/>)
- DRA - Drama (<https://catalog.dccc.edu/courses/course-descriptions/dra/>)
- ENG - English (<https://catalog.dccc.edu/courses/course-descriptions/eng/>) (ENG 115 and above)
- HUM - Humanities (<https://catalog.dccc.edu/courses/course-descriptions/hum/>)
- MUS - Music (<https://catalog.dccc.edu/courses/course-descriptions/mus/>)
- PHI - Philosophy (<https://catalog.dccc.edu/courses/course-descriptions/phi/>)

Some programs specify or recommend a Foreign Language.

Code	Title	Hours
<i>Foreign Languages:</i>		
FRE 101	Elementary French I	
FRE 102	Elementary French II	
FRE 111	Intermediate French I	
FRE 112	Intermediate French II	
SPA 101	Elementary Spanish I	
SPA 102	Elementary Spanish II	
SPA 201	Intermediate Spanish I	
SPA 202	Intermediate Spanish II	

Mathematics Elective:

Code	Title	Hours
Select from one of the following sequences:		
MAT 120 & MAT 121	Modern College Mathematics and Introduction to Probability and Statistics	6
MAT 135 & MAT 136	Business Precalculus and Business Calculus	6
MAT 151 & MAT 152	College Algebra and Precalculus	8
MAT 160 & MAT 161	Calculus I and Calculus II	8

Part-Time Academic Plan

Course	Title	Hours
First Semester		
CS 100	Introduction to Information Technology	3
CS 117	Fundamentals of Game Design Theory and Practice	3
CS 101	Introduction to Computer Science	3
Hours		9
Second Semester		
ENG 100	English Composition I	3
Select one of the following:		3-4
MAT 120	Modern College Mathematics	
MAT 121	Introduction to Probability and Statistics	
MAT 135	Business Precalculus	
MAT 151	College Algebra	
MAT 160	Calculus I	
IMM 120	Web Page Design and Development	3
Hours		9-10
Third Semester		
CS 118	Game Creation Development	3
ENG 112	English Composition II: Writing About Literature	3
CS 104 or CS 110	Introduction to Java Programming or Introduction to C++	3
Hours		9
Fourth Semester		
Mathematics Elective		3-4
CS 119	Introduction to Computer Game Programming	3
NET 110	Network Communications	3
Hours		9-10
Fifth Semester		
IMM 201	Audio and Video for Multimedia	3
CS 106 or IMM 110	Art and Animation or Multimedia Graphics & Design	3
CS 204 or CS 210	Intermediate Java Programming or Object Oriented C++	3
Hours		9

Sixth Semester		
CS 250	Digital Portfolio Development	3
Any transferable Scientific Inquiry (SI) designated Science course		4
Humanities Elective		3
Hours		10
Seventh Semester		
Any transferable Oral Communication (OC) designated course		3
Any transferable Diversity and Social Justice (DJ) and Global Understanding (GU) designated Social Science course		3
Hours		6
Total Hours		61-63

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Diversity and Social Justice and Global Understanding designated courses (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#Dual_DJ_GU_CourseList).

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Career