

Game Design and Development - Option, Associate in Applied Science

The video game industry is more than just entertainment with many practical applications in the healthcare, education, and military sectors. The Game Design and Development Option in Computer Programming is for those who have a passion for gaming and are interested in gaining necessary skills required to become part of the field. Students will learn game theory, graphics design, animation (OpenGL and Direct3D), 3D modeling (Maya), and game programming (GameMaker and Unity).

For additional program information, contact department chair, Dr. Otto Hernandez, at (609)343-4978 or hernande@atlanticcape.edu.

Upon completion of this program students will be able to:

- Apply the process involved in the design and development of a game, from concept inception toward final implementation of functional interactive game product;
- Create environments, user interfaces, problem solving and ability to use game engine platforms;
- Pursue careers in quality assurance (Q/A) game testing, junior game designer, junior level designer, junior 3D modeler;
- Communicate efficiently in written and oral form.

(GADE-Fall 2022)

General Education Courses

When a course is not specified, refer to the list of approved General Education courses.

Communication

Course #	Title	Credits
ENGL101	Composition I	3
ENGL230	Technical Writing	3

Mathematics-Science-Technology

Course #	Title	Credits
CISM125	Introduction to Computers	3
	Choose: MATH121-Applications of Mathematics or MATH220-Statistical Methods (4 credits)	4
PHYS100	Conceptual Physics	4

Humanities

Course #	Title	Credits
	General Education Humanities Course (3 credits)	3

Program Requirements

Course #	Title	Credits
CISM135	Computer Programming-C++	4
CISM154	Computer Programming-Java	4
CISM159	Intermediate Programming-C++	4
CISM160	Systems Analysis and Design	3
CISM170	Database Design Using Oracle	3
CISM254	Advanced Computer Programming-Java	4
GAME110	Fundamentals of Game Design	3
GAME150	Introduction to Game Programming	3
GAME200	Game Graphics	4
GAME210	Game Animation	4
GAME220	Artificial Intelligence for Games	4
Total Credits		60

Recommended Sequence of Courses

First Semester

Course #	Title	Credits
CISM125	Introduction to Computers	3
CISM135	Computer Programming-C++	4
ENGL101	Composition I	3
	General Education Science Course (4 credits)	4

Second Semester

Course #	Title	Credits
CISM154	Computer Programming-Java	4
CISM159	Intermediate Programming-C++	4
ENGL230	Technical Writing	3
	General Education Humanities Course (3 credits)	3
	General Education Mathematics Course (4 credits)	4

Third Semester

Course #	Title	Credits
CISM170	Database Design Using Oracle	3
CISM254	Advanced Computer Programming-Java	4
GAME110	Fundamentals of Game Design	3
GAME150	Introduction to Game Programming	3

Fourth Semester

Course #	Title	Credits
GAME200	Game Graphics	4
GAME210	Game Animation	4
GAME220	Artificial Intelligence for Games	4
PHYS100	Conceptual Physics	4