GAME AND SIMULATION DEVELOPMENT

Frederick Community College

Game and Simulation Development

The game and simulation development program prepares students for a career in the interactive technology capacities, such as multimedia artist, visual efforts artist, interactive content designer, interactive media designer, digital animator, graphic designer, modeling and simulation engineer, simulation application developer, web developer, game designer, game developer, and application programmer.

Game and Simulation Development A.A.S. Degree

The Game and Simulation Development A.A.S. degree program prepares students to hold positions in animation, design, development, engineering, and programming. Game design and development skills covered include animation, graphics, 3D modeling and simulation, game engines, user interfaces, game scripting, and game programming. Students will also learn programming languages such as Java, C++, C#, and Python.

Learning Outcomes

- Obtain knowledge and skills with current programming languages.
- Design, implement, test, and debug computer game or simulation software using current technologies and tools.
- Design and develop computer animation using industry standard tools.
- Use appropriate techniques and resources to research game and simulation related issues as well as programming tools and technologies to engage lifelong technical learning.
- Integrate software design and project implementation into their roles as computer game or simulation designers/developers.
- Gain knowledge and skills in subject areas including practical game design, visual design, simulation design, game scripting, game programming, and project management.

Computer Animation Certificate

The Computer Animation Certificate program introduces students to the current animation and modeling software, such as Blender, Autodesk 3ds Max, and Autodesk Maya. This certificate covers animation production, computer graphics, interactive 3D foundations, and 3D modeling & animation. Students will learn the skills necessary to work as a digital graphic designer, multimedia designer, digital animator, or character rigger.

Game Programming Certificate

The Game Programming Certificate program prepares students to develop interactive computer games on the Internet, mobile computers, and personal computers. This certificate targets students who wish to obtain the skills necessary to develop computer games using programming languages such as Java, C++, C#, and Python.

Growth Potential & Estimated Salaries

The median annual wage for multimedia artists and animators was $75,270 in 2019. Overall employment of multimedia artists and animators is projected to grow 4% from 2018 to 2028.

Source: Bureau of Labor Statistics Occupational Outlook Handbook (bls.gov/ooh)

frederick.edu

Internship Program

Internships help students integrate what is taught in the classroom with what is required in the workplace. Students take internships to develop knowledge and skills valued by employers. Students in the game and simulation development degree program at Frederick Community College (FCC) are eligible to receive credit for internships.

Financial Assistance

FCC provides a tuition payment plan for students who wish to spread payment over several months. Scholarship and loan assistance is available for eligible students. For complete scholarship information, contact Financial Aid at 301.846.2620.

Transfer Note

To find more information about how credits will transfer from FCC to a state four-year institution, visit artsys.usmd.edu or consult a College advisor. Students who plan to transfer should speak with an advisor or program manager from their chosen transfer institution before selecting elective courses.

View required course listings: frederick.edu/game

For more information:

James Hatch • 301.624.2769 • jhatch@frederick.edu