



## What is interactive design and game development?

Interactive design and game development (IDGD) is an area of study where students can take real events and represent them in a virtual environment using computers and modern technologies. Students also learn to break down complex ideas into a visual medium where they can be viewed in an easy and understandable way.

Interactivity has become a large part of the IDGD field. This includes the large and growing field of video games. Video game making has become a strong staple both in entertainment and in education, especially in Maryland. HCC's program enables students to take a concept and produce an image or an animation. Then, interactive components are taught to enhance the visual experience.

After completing this program, students can look forward to careers in the following areas:

- application, game, and software development
- software testing and quality assurance
- software engineering
- 2D and 3D animation
- game, level, and user interface design
- 3D, CG, environment, and concept art

- e-learning and serious games development
- motion design

## What is the employment outlook for this career?

Employment in IDGD is large and growing. In the Maryland/Washington D.C. area, over 80 game and simulation companies already exist, and that number is growing. Opportunities in serious games for defense, corporate training, law enforcement, medicine, and education are very high.

Maryland is the number one state on the east coast for game developers. Game development has grown so large that it now grosses more than the movie-making industry. Billions of dollars are being acquired by game and simulation companies annually. These dollars provide good salaries to people throughout Maryland.

## What can I expect to earn as a game developer?

According to Game Developer Magazine, the median income salary for someone in the video game business in Maryland is \$75,000. For entry-level positions, employees can expect to earn between \$37,000 and \$67,000, depending on their field.

## Why should I attend HCC?

HCC offers two areas of specialization:

- Interactive Design
- Game Development

HCC has multiple computer labs and software that includes Adobe Aftereffects, 3DS MAX, Game Engines, Adobe Animate, Adobe XD, Unity3d, Adobe Character Animator, Adobe Captivate, Invision Studio, Android Studio, Compilers and IDEs, Adobe Photoshop, and Adobe Illustrator. With hands-on instruction, students can get the knowledge they need in a one-on-one environment, with insight from people who work directly in the field.

Successful educational institutions, combined with Web application and gaming companies, have worked with the IDGD program in order to establish what they need in potential students and employees. HCC has ties with other colleges and universities to help students

transfer to four-year institutions. Strong business relationships are being built to ensure students' success after college. Internships are also available.

A.A.S. Degree

## Information Systems Technology Concentration 5: Option in Interactive Design and Game Development

The Interactive Design and Game Development (IDGD) concentration provides students with the skills to design and develop computer games, detailed simulations and interactive technologies. Program concentration may be chosen from two separate tracks. Choosing from one of the tracks allows students to specialize in an area that is most beneficial. Course concentration is on game design, virtual modeling, animation, interactive application creation, programming, documentation, structured design principles, problem solving, and business ethics. Classes are conducted in hands-on labs. Credits from all three options transfer to the University of Baltimore.

*"In the long run with this major, I have gotten more experience in group work, the development process of animations and games, and the fundamentals of what it takes to see a project come to life. By far the best major for those candid students wanting to get into this field." - Ryan Tucker, IDGD Graduate; Founder, Evlox Studios*

**General Education Requirements 21-23 credits**

**Arts/Humanities**

Select from approved General Education course list ...3

**Behavioral/Social Sciences**

Select from approved General Education course list ...3

**Biological/Physical Science**

Select from approved General Education course list 3-4

**Diversity**

Select from approved General Education course list...3

**English**

ENG 112 Technical Writing I..... 3

*\*minimum grade of "C" or better is required for ENG 112*

SPD 108 Introduction to Human Communication..... 3

**OR**

ENG 101 English Composition ..... 3

*(SPD 108 preferred)*

**Mathematics**

Select from approved General Education course list ...3

*(Students taking the Game Development Track select either MAT 101 or MAT 114)*

**Program Requirements 18 credits**

CSC 102 Introduction to Information Technology..... 3

GDT 112 Computer Graphics ..... 3

SDE 102 Multimedia Authoring and 2-Dimensional Animation..... 3

SDE 130 Introduction to Object-Oriented Programming..... 3

SDE 201 Multimedia Algorithms and Mobile Devices..... 3

SDE 207 Multimedia Project Development.... 3

**Track A: Game Development 9 credits**

CSC 132 Introduction to C and C++ Programming..... 3

SDE 104 Game Programming and Development I ..... 3

SDE 205 Game Programming and Development II ..... 3

*\* Note: 12 restricted elective credits are required. See the listing below.*

**Track B: Interactive Design 18 credits**

GDT 116 Digital Imaging..... 3

GDT 142 Computer Illustration: Adobe Illustrator ..... 3

SDE 203 3D and Advanced Animation ..... 3

WEB 101 Web Design I..... 3

WEB 115 Web Developer I..... 3

WEB 215 Javascript and Multimedia..... 3

*\* Note: 3 restricted elective credits are required. See the listing below.*

**\*Restricted Electives 3-12 credits**

Electives should be selected in consultation with the programs lead faculty or the Technology and Computer Studies Division Director to satisfy career goals and/or transfer college requirements. Select 3-12 elective credits to complete your choice of Tracks, from the following list.

ART 102 Two-Dimensional Design ..... 3

ART 103 Drawing..... 3

CAD 152 Computer-Aided Design..... 3

CSC 109 UNIX/Linux Operating System ..... 3

CSC 132 Introduction to C and C++ Programming..... 3

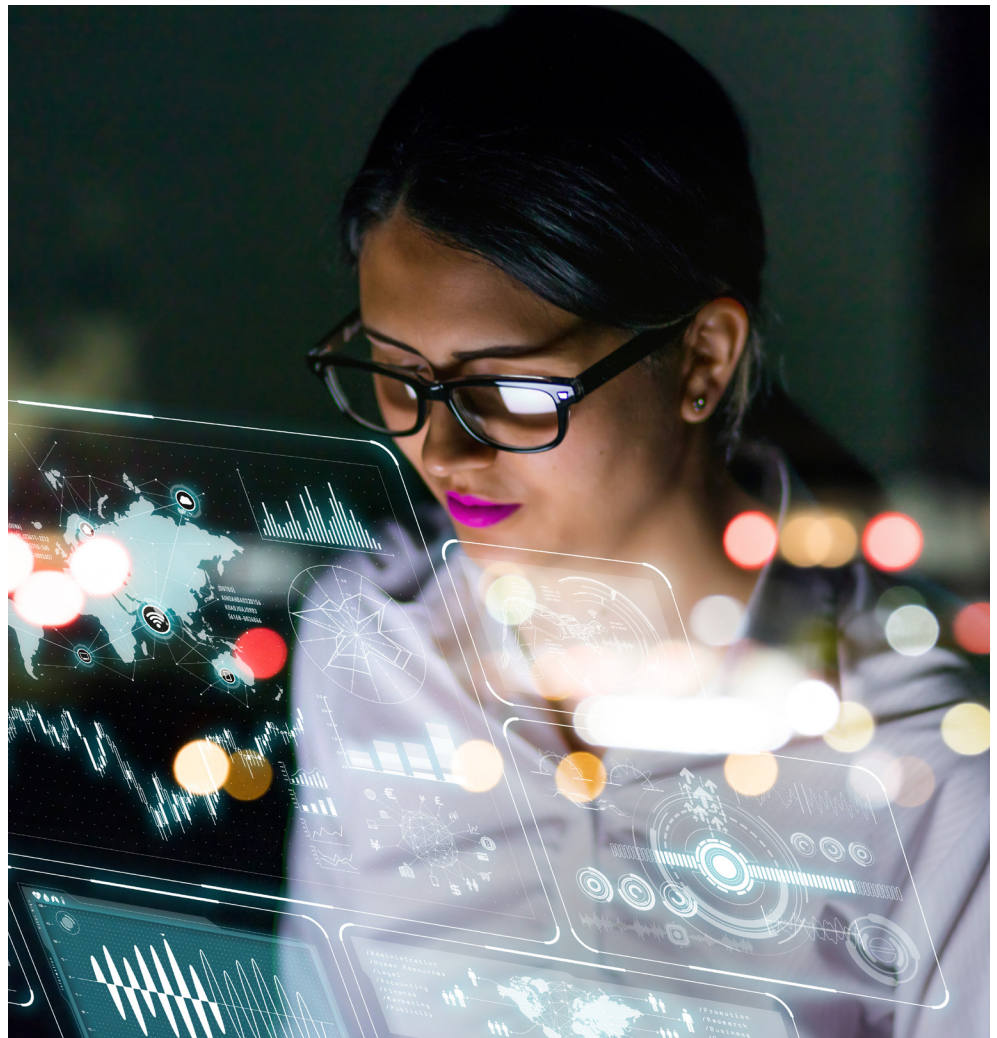
CSC 134 Introduction to JAVA Programming.. 3

CSC 232 Advanced C++ Programming..... 3

ENG 114 Mythology ..... 3

GDT 116 Digital Imaging..... 3

GDT 142 Computer Illustration: Adobe Illustrator ..... 3



GDT 220	Digital Video and Audio.....	3
IST 173	Database Fundamentals .....	3
MAT 161	Precalculus .....	4
MAT 203	Calculus I.....	4
MAT 204	Calculus II.....	4
MUS 175	Introduction to Electronic Music.....	3
PHY 201	General Physics I .....	4
<b>OR</b>		
PHY 203	Principles of Physics I .....	(5)
SDE 104	Game Programming and Development I .....	3
SDE 203	3D and Advanced Animation .....	3
SDE 205	Game Programming II .....	3
SDE 269	Internship I .....	1-3
SDE 270	Internship II .....	1-3
SPD 103	Public Speaking.....	3
<b>OR</b>		
SPD 108	Introduction to Human Communication.....	(3)
WEB 101	Web Design I.....	3
WEB 110	Web Design II.....	3
WEB 115	Web Developer I.....	3
WEB 215	Javascript and Multimedia.....	3

**Degree Requirement..... 60**

**Contact Information**

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**Recommended Professional Resources**

International Game Developers Association: [www.igda.org](http://www.igda.org)

**SIGGRAPH**

[www.siggraph.org](http://www.siggraph.org)

[www.hagerstowncc.edu/IDGD](http://www.hagerstowncc.edu/IDGD)