

Interactive Design and Game Development



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
- User Experience Designer / User Interface Designer



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.

Billions of dollars are being acquired by game and simulation companies annually. These dollars provide good salaries to people throughout Maryland.

PROGRAM OPTIONS

- 🎓 A.A.S. Degree, Interactive Design and Game Development Concentration

CAREER OUTLOOK

MEDIAN SALARY

\$105K

for Software Developers

EMPLOYMENT



1.5M jobs in U.S.
21% growth in next ten years

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.

(source: www.bls.gov/ooh)

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, Blender 3d, Adobe Animate, Adobe XD, Unity3d, Unreal Engine, Adobe Captivate, Figma Interface Design Tool, Android Studio, 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.

"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

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.

General Education Requirements 21-22 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

*minimum grade of "C" or better is required for ENG-101 and ENG-101E

ENG	101	English Composition	3
(ENG 101E - English Composition for English Language Learners is an approved substitution for ENG 101)			
ENG	112	Technical Writing I	3

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	2D Animation and Interactive Design	3
SDE	130	Introduction to Object-Oriented Programming.....	3
SDE	201	Mobile Applications Design and Development	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: 11-12 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: 2-3 restricted elective credits are required. See the listing below.

*Restricted Electives

2-12 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
COM	103	Public Speaking.....	3

OR

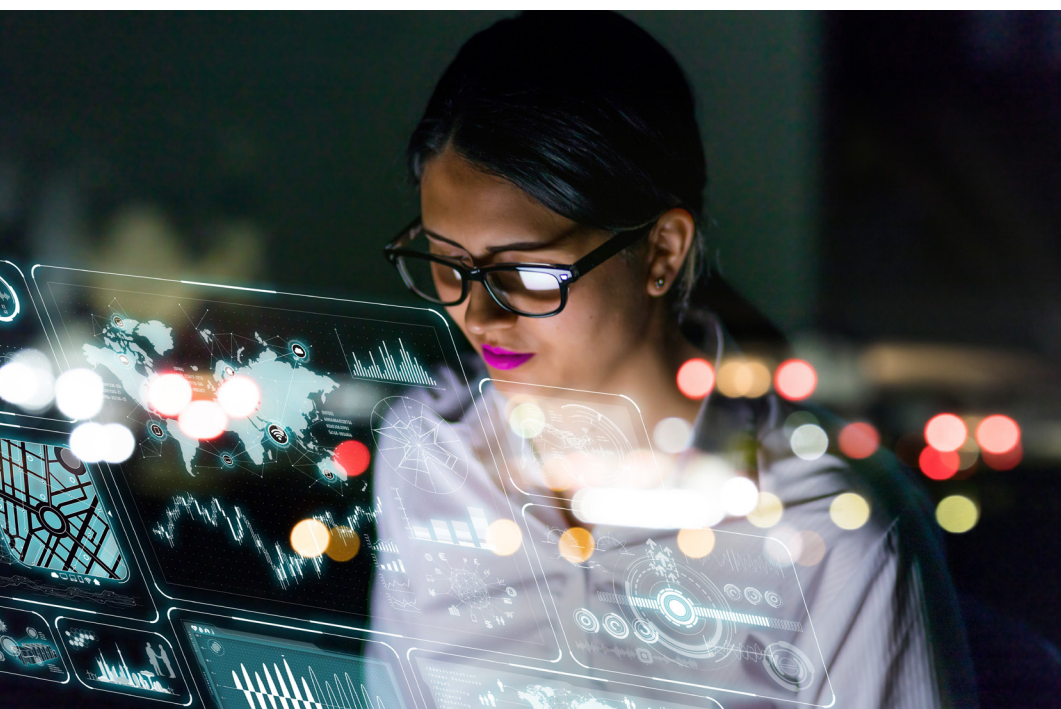
COM	108	Introduction to Human Communication.....(3)	
CSC	109	UNIX/Linux Operating System.....	3
CSC	132	Introduction to C and C++ Programming.....	3
CSC	134	Introduction to JAVA Programming..	3
CSC	232	Advanced C++ Programming.....	3
ENG	114	Mythology	3
GDT	116	Digital Imaging.....	3
GDT	142	Computer 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

OR

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	I-3
SDE	270	Internship II	I-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

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Contact Information

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Recommended Professional Resources

International Game Developers
Association: www.igda.org

SIGGRAPH
www.siggraph.org

www.hagerstowncc.edu/IDGD

