

# COMPUTER GAME DEVELOPMENT - AAS DEGREE

## Overview

See Department website and program contacts here

The **Computer Game Development (AAS) degree** is designed for students seeking careers in game development, interactive media, and digital content creation. The curriculum combines technical, artistic, and programming skills to prepare students for entry-level positions in the computer game and digital media industries.

Coursework includes topics such as **2D and 3D asset creation, modeling, rigging and animation, texturing, programming, desktop and mobile app development, game design fundamentals, and industry-standard game engines and software**. Students develop practical technical and creative skills used in game development and related technology fields.

The Computer Game Development program is workforce-focused and emphasizes practical, applied learning that prepares students for careers in game development, 3D imaging, interactive media, and related digital industries. The program may also **support transfer or continued study in advanced game development and digital media programs**.

*This program can be completed fully online.*

Students are encouraged to work with an advisor (<https://www.mhcc.edu/student-resources/academic-advising/>) to ensure appropriate course selection and program planning based on their educational background and career goals.

**Refer to the tabs above for additional information about:**

- **Education Plan** – provides a sample term-by-term sequence of courses
- **Career Info** – includes information on potential occupations, employment trends, and earnings

## Program Learning Objectives

At the completion of this program, students should be able to:

- Create appropriate asset types for use in different interactive applications
- Create design, technical and analysis documentation for individual and team-based interactive projects
- Evaluate a broad range of game genres and demonstrate appropriate design application to them
- Apply gaming techniques to non-game uses such as marketing, simulations, education and social networking
- Evaluate balance, function, fairness and intention in level elements
- Work collaboratively in a real-world-like team to identify, design and create a game using developmental techniques commonly used in industry
- Contrast the benefits of various publishing and funding platforms
- Produce an entry-level portfolio in their chosen discipline
- Demonstrate an applied understanding of programming fundamentals
- Analyze changing technology and its influence on game design as an industry and a medium

## Education Plan

This sample Education Plan illustrates one possible course sequence. Students should consult an advisor (<https://www.mhcc.edu/student-resources/academic-advising/>) to create a personalized plan.

*General education courses (such as math, writing, health, etc.) can be taken during any term, or before starting the program.*

### First Quarter

Fall		Credits
CIS125WP	Word Processing	3
CIS125GA	Beginning Game Programming	3
CIS135GMA	Introduction to 3-D Modeling	3
CIS135GRA	Graphics for Game Asset Development I	3
CIS195	Interface Design for Interactive Applications	3
CIS125SS	Spreadsheets	3
<b>Credits</b>		<b>18</b>

### Second Quarter

Winter		
CIS135	Introduction to Game Industry	3
CIS135GMB	Intermediate Game Modeling	3
CIS135GRB	Graphics for Game Asset Development II	3
CIS197WAA or CIS197HTM	Web Authoring: Applications or Web Authoring: HTML5 and CSS3	3
ISTM133P	Introduction to Python	4
<b>Credits</b>		<b>16</b>

### Third Quarter

Spring		
CIS135GMC	Advanced 3-D Modeling	3
CIS135TXP	Special Topics in Emerging Technologies	3
CIS235ANM	Introduction to 3-D Animation	3
WR121Z	Composition I	4
Approved Elective (p. 2)		3-4
<b>Credits</b>		<b>16-17</b>

### Fourth Quarter

Fall		
CIS235	Game Design Theory	3
CIS235DD	Introduction to Digital Painting and Concepting	3
CIS235RIG	Rigging for Animation and Games	3
MTH065	Beginning Algebra II (or higher, excluding MTH098) <sup>1</sup>	4
Health and Physical Education requirement ( <a href="https://catalog.mhcc.edu/degree-certificate-requirements/aas/#AAS-HPE">https://catalog.mhcc.edu/degree-certificate-requirements/aas/#AAS-HPE</a> )		3
<b>Credits</b>		<b>16</b>

### Fifth Quarter

Winter		
CIS235CXP	Career Specific Exploration for Game Majors	3
CIS235TLC	Team Level Creation	3
CIS235UNA	Small Games Programming I	3
Approved Elective (p. 2)		3-4

Human Relations requirement (<https://catalog.mhcc.edu/degree-certificate-requirements/aas/#AAS-HR>) 3-4

**Credits** **15-17**

### Sixth Quarter

#### Spring

BA150 or BT271	Developing a Small Business or Advanced Business Projects	3
CIS235ST	Game Studio	3
CIS235UNB	Small Games Programming II	3
CIS235PUB	Publishing for the Game Industry	3
Approved Elective (p. 2)		3-4

**Credits** **15-16**

**Total Credits** **96-100**

<sup>1</sup> Students seeking to transfer should take MTH111Z Precalculus I: Functions or higher.

### Approved Electives

Complete three (3) of any courses from the approved electives list or any Modern Language course.

Code	Title	Credits
ART117	Basic Design III: Three- Dimensional	4
ART211	Survey of Visual Arts 🌐	4
ART231	Drawing I	4
ART234	Figure Drawing I	4
ISTM235MA	Mobile Apps 1: Introduction to iOS Mobile Applications Development	3
ISTM235MB	Mobile Apps 2: Intermediate iOS Mobile Applications Development	3
CIS197CSP	Web Authoring: Client-Side Programming	3
MUS117	Electronic Music Production I	3
MUS118	Electronic Music Production II	3
MUS119	Electronic Music Production III	3
WR241	Creative Writing: Fiction I	4
WR245	Creative Writing: Fiction II	4

### Modern Languages

#### American Sign Language

ASL101	First-year American Sign Language I	4
ASL102	First-year American Sign Language II	4
ASL103	First-year American Sign Language III	4
ASL201	Second-year American Sign Language I 🌐	4
ASL202	Second-year American Sign Language II 🌐	4
ASL203	Second-year American Sign Language III 🌐	4

#### Japanese

JPN101	First-year Japanese I	5
JPN102	First-year Japanese II	5
JPN103	First-year Japanese III	5
JPN201	Second-year Japanese I 🌐	5
JPN202	Second-year Japanese II 🌐	5
JPN203	Second-year Japanese III 🌐	5

#### Spanish

SPAN101Z	First-year Spanish I	4
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SPAN102Z	First-year Spanish II	4
SPAN103Z	First-year Spanish III	4
SPAN201	Second-year Spanish I 🌐	4
SPAN202	Second-year Spanish II 🌐	4
SPAN203	Second-year Spanish III 🌐	4

### Awarding Requirements

The following requirement(s) must be fulfilled to be awarded the AAS in Computer Game Development degree:

- All core program courses (AM) must be completed within five (5) years of starting the program.

### Career Information

Explore potential careers related to this program, including typical job roles, employment trends, and projected growth. This information can help you better understand how your education may align with future career opportunities.