

# GAME PROGRAMMING AND DEVELOPMENT, A.A.S.

The **Game Programming and Development degree** prepares students to develop video games using programming languages and development tools used in the game industry.

For more information about Computer and Information Science, please visit the program page (<http://www.cod.edu/cis/>).

## Degree Requirements

Field of Study Code: CIS.AAS.GAMEP

Code	Title	Credits
<b>Program Requirements</b>		
CIS 1199	Introduction to Game Industry	3
CIS 1200	Game Design	3
CIS 1211	2D Game Development	3
CIS 1212	Game Asset Creation Ad File Optimization	3
CIS 1400	Programming Logic and Technique	4
CIS 2211	2D Game Scripting	3
CIS 2212	3D Game Development	4
CIS 2220	Game Programming Using C++	3
CIS 2420	Microprocessor Assembly Language	4
CIS 2541	C++ Language Programming	4
CIS 2542	Adv C++ With Data Structure Application	4
CIS 2770	Introduction to System Analysis & Design	3
CIS 2290	Game Development Capstone Project	4
PHYSI 1100	Physics	4
Select one of the following:		3-5
MATH 1115	Technical Mathematics I	
MATH 1428	College Algebra With Applications	
MATH 1431	Precalculus I	
MATH 1432	Precalculus II: Trigonometry	
ENGLI 1101	English Composition I	3
or ENGLI 1105	Workplace Writing	
Select one of the following:		3
SPEEC 1100	Fundamentals of Speech Communication	
SPEEC 1120	Small-Group Communication	
SPEEC 1150	Introduction to Business Communication	
<b>General Education</b>		
Select one course from each category:		6
Social and Behavioral Sciences		
Humanities and Fine Arts		
<b>Total Credits</b>		<b>64-66</b>

## General Education Requirements

For general education requirements for the A.A.S. degree, please visit the A.A.S. degree catalog page (<https://catalog.cod.edu/associate-degree-programs/associate-applied-science-degree/>).

Suggested Semester Sequence

Course	Title	Credits
<b>First Semester</b>		
CIS 1199	Introduction to Game Industry	3
CIS 1400	Programming Logic and Technique	4
ENGLI 1101	English Composition I	3
or ENGLI 1105	or Workplace Writing	
GEN ED	Social & Behavioral Science	3
Select one:		3-5
MATH 1115	Technical Mathematics I	
MATH 1428	College Algebra With Applications	
MATH 1431	Precalculus I	
MATH 1432	Precalculus II: Trigonometry	
<b>Credits</b>		<b>16-18</b>
<b>Second Semester</b>		
CIS 1200	Game Design	3
CIS 1211	2D Game Development	3
CIS 1212	Game Asset Creation Ad File Optimization	3
CIS 2541	C++ Language Programming	4
Select one of the following:		3
SPEEC 1100	Fundamentals of Speech Communication	
SPEEC 1120	Small-Group Communication	
SPEEC 1150	Introduction to Business Communication	
<b>Credits</b>		<b>16</b>
<b>Third Semester</b>		
CIS 2211	2D Game Scripting	3
CIS 2212	3D Game Development	4
CIS 2542	Adv C++ With Data Structure Application	4
CIS 2770	Introduction to System Analysis & Design	3
PHYSI 1100	Physics	4
<b>Credits</b>		<b>18</b>
<b>Fourth Semester</b>		
CIS 2220	Game Programming Using C++	3
CIS 2420	Microprocessor Assembly Language	4
CIS 2290	Game Development Capstone Project	4
GEN ED	Humanities & Fine Arts	3
<b>Credits</b>		<b>14</b>
<b>Total Credits</b>		<b>64-66</b>

## Program Milestones

### First Semester

- Consider joining or visiting with a professional, cultural or interest-based Student Club ([http://cod.edu/student\\_life/clubs\\_org/](http://cod.edu/student_life/clubs_org/)).

### Second Semester

- If you have not done so yet this semester, it is important to make an appointment with a Faculty or Program Advisor (<https://www.cod.edu/academics/programs/cis/faculty.aspx>) to discuss your future academic progress.

This page lists programs related to one another.

- Application and Technical Support Specialist, A.A.S. (<https://catalog.cod.edu/programs-study/computer-information-science/application-technical-support-specialist-aas/>)

- Business Productivity Software, Certificate (<https://catalog.cod.edu/programs-study/computer-information-science/business-productivity-software-certificate/>)
- C++ Language Proficiency, Certificate (<https://catalog.cod.edu/programs-study/computer-information-science/c-language-proficiency-certificate/>)
- Data Analytics, Certificate (<https://catalog.cod.edu/programs-study/computer-information-science/data-analytics-certificate/>)
- Database Proficiency, Certificate (<https://catalog.cod.edu/programs-study/computer-information-science/database-proficiency-certificate/>)
- Enterprise Database Proficiency, Certificate (<https://catalog.cod.edu/programs-study/computer-information-science/enterprise-database-proficiency-certificate/>)
- Game Animation and Design, A.A.S. (<https://catalog.cod.edu/programs-study/computer-information-science/game-animation-design-aas/>)
- Game Design and Development, A.A.S. (<https://catalog.cod.edu/programs-study/computer-information-science/game-design-development-aas/>)
- Game Design and Development, Certificate (<https://catalog.cod.edu/programs-study/computer-information-science/game-design-development-certificate/>)
- Game Programming and Development, Certificate (<https://catalog.cod.edu/programs-study/computer-information-science/game-programming-development-certificate/>)
- Internet of Things (IoT) Proficiency, Certificate (<https://catalog.cod.edu/programs-study/computer-information-science/internet-of-things-proficiency-certificate/>)
- iOS Developer Proficiency, Certificate (<https://catalog.cod.edu/programs-study/computer-information-science/iphone-ipad-developer-proficiency-certificate/>)
- JAVA Language Proficiency, Certificate (<https://catalog.cod.edu/programs-study/computer-information-science/java-language-proficiency-certificate/>)
- LINUX, Certificate (<https://catalog.cod.edu/programs-study/computer-information-science/linux-certificate/>)
- Python Language Proficiency, Certificate (<https://catalog.cod.edu/programs-study/computer-information-science/python-language-proficiency-certificate/>)
- Software Development, A.A.S. (<https://catalog.cod.edu/programs-study/computer-information-science/software-development-aas/>)
- Spreadsheet Proficiency, Certificate (<https://catalog.cod.edu/programs-study/computer-information-science/spreadsheet-proficiency-certificate/>)
- UNIX Proficiency, Certificate (<https://catalog.cod.edu/programs-study/computer-information-science/unix-proficiency-certificate/>)
- Visual BASIC Language Proficiency, Certificate (<https://catalog.cod.edu/programs-study/computer-information-science/visual-basic-language-proficiency-certificate/>)
- Web Client Developer, Certificate (<https://catalog.cod.edu/programs-study/computer-information-science/web-client-developer-certificate/>)
- Web Development, A.A.S. (<https://catalog.cod.edu/programs-study/computer-information-science/web-development-aas/>)
- Web Programmer, Certificate (<https://catalog.cod.edu/programs-study/computer-information-science/web-programmer-certificate/>)
- Windows Network Administration, Certificate (<https://catalog.cod.edu/programs-study/computer-information-science/windows-network-administration-certificate/>)