

## Game Programming

### 27 unit certificate • 60 unit degree

Students completing the Game Programming Certificate or A.S. degree will be well qualified in the process of designing and coding programming logic for games including coding game rules, mechanics and simulations to create complete modules and game experiences.

## Required Courses (to earn certificate)

### **GAM-1 Business of Video Games (3 units)**

An introduction to the field of game development. Students will explore the job market, career paths and business aspects of game development professionals.

### **GAM-2 History of Video Games (3 units)\***

A comprehensive study of the evolution of video games, including their technological and artistic antecedents, with analysis of how video games reflect the beliefs, aspirations and values of the cultures where they flourish. Study includes gameplay experience and analysis of notable game genres, identifying significant artistic and technological innovations.

### **GAM-3A Game Design (3 units)**

An introduction to the fundamental techniques, concepts, vocabulary, and practical application of these skills towards the discipline of game design.

### **GAM-4A Game Scripting (3 units)**

A first course in programming for games stressing fundamental programming principles. Covers the logic structures and design paradigms that allow for fundamental interactions in digital games.

### **GAM-4B Advanced Game Scripting (3 units)**

*Prerequisite: CIS-17B or CSC-17B or CSC-18B or CIS-18B or GAM AM-3A*

An advanced exploration of game design emphasizing gameplay tuning, focus group testing, analytics, and user experience.

### **GAM-5A Concept Art (3 units)**

Introduction to digital drawing techniques using industry standard software. Covers the usage of digital drawing hardware and drawing skills with an emphasis on creative and conceptual expression. A course in sketching, digital drawing, matte painting, and visual ideation targeted towards the video games industry. Emphasizes topics in anatomy, perspective, color, mood, shape, and context.

### **GAM-6A 3D Digital Modeling (3 units)**

Introduces concepts of 3D Modeling in a virtual environment. Emphasis is on the introduction of three-dimensional concepts, the use of modeling tools, and menu structures within applications of 3D design systems.

### **GAM-7 Game Studio (3 units)**

Introduction to practical game development techniques emphasizing team skills, project management, scope discipline, and task completion. Focuses on delivering finished projects for the purpose of portfolio or further development.

### **GAM-8 Current Topics in Game Development (3 units)**

A workshop class focusing on a single aspect or discipline of games development that is contemporary, modern, or of particular need in the games industry.

*\*this class transfers toward one or more CSUSB or CalPoly majors. Visit [www.assist.org](http://www.assist.org) or the Counseling office for details.*

## Game Programming

Tuition \$1702-\$1,748 • Duration of Study: 16 months

An Associate of Science Degree in Game Programming will be awarded upon completion of the required courses (27 units) plus the General Education requirements. Please refer to the Norco College Catalog or visit the Counseling Center.

## Job & Wage Information

- Game Programmer  
Wage Range\*: \$25.82-59.84  
1% decrease in employment expected in CA 2019-2029; 10,400 openings annually  
More information: <http://bit.ly/ComputerProg>

\*2019, Riverside/Ontario/San Bernardino Metro Area

## What type of interests might be a good fit for this career choice?



## Artistic

People who have artistic, innovating, or intuitional abilities. People who prefer using their creativity or imagination.

*For more information on careers that fit this category of interests, visit the Career Center in the Center for Student Success.*

## What's Your School?

NORCO COLLEGE  
SCHOOL OF  
Science, Technology,  
Engineering & Mathematics

Visit [www.norcollege.edu/STEM](http://www.norcollege.edu/STEM)  
for more information about this program.  
View gainful employment information at:  
[www.norcollege.edu/academicaffairs/cte](http://www.norcollege.edu/academicaffairs/cte)