



PROGRAMMING FOR ELECTRONIC GAMES

THE PROGRAM

The Information Technology Gaming Program is for individuals who want to design, develop and program computer games for entertainment or as a learning tool. Often combining advanced physics, artificial intelligence, 3D graphics, digitized sound, an original musical score, and a complex strategy united by an overriding theme, computer games have become highly sophisticated and so, too, the skills demanded by those responsible for their creation and programming.

Each aspect of the game can consume all of one or more programmers' time. Some programmers may specialize in one area of game programming, but many are familiar with several aspects. The number of programmers needed for each feature depends somewhat on programmers' skills, but typically is dictated by the type of game being developed.

Using the Python programming language C++ and Microsoft's XNA Development Platform, students in Macomb's Gaming Program acquire those highly specialized skills that can lead to successful careers in computer gaming or in the production of training materials, including simulations, for a variety of companies.

A certificate option is available as an alternative to the associate degree. Certificate programs offer a high degree of specialization in a short program of instruction and may later be applied toward an associate degree.

EMPLOYMENT OUTLOOK

With an associate degree in Programming for Electronic Games, you will be qualified for careers that include computer programmer and software developer. Median salary in Michigan for these careers is \$70,860.

The program at Macomb was great to experience all the fields of gaming.

—Wilson Yang,
Gaming Program
graduate

FOR MORE INFORMATION

Call 866.622.6621
visit www.macomb.edu
or contact
Professor George Schleis
schleisg@macomb.edu



**Macomb
Community College**

Education • Enrichment • Economic Development

Discover. Connect. *Advance.*SM



MACOMB

TEST THE WATERS

At Macomb, you can “test the waters,” exploring the features and benefits of each IT specialty for about **one-quarter the cost of a publicly funded Michigan four-year university**, before making your choice and earning your Associate of Applied Science degree.

2 + 2 = \$1,000,000

Although skill-specific certificates are available in all of Macomb’s IT specialties, a bachelor’s degree is the requirement for the most desirable IT jobs. And U.S. Census Bureau statistics show that a student with a four-year degree will earn one-million dollars more over their lifetime!

PLANNING TO TRANSFER TO A FOUR-YEAR COLLEGE OR UNIVERSITY?

Macomb’s IT program provides a direct path to a bachelor’s degree at select colleges and universities, and up to 90 credits earned at Macomb may be transferable. Students intending to transfer to another college or university should talk to a Macomb counselor or academic advisor before registering for classes.

Center Campus: 586.286.2228
South Campus: 586.445.7211
Email: answer@macomb.edu

WORKING IN A VIRTUAL WORLD

The Information Technology Department at Macomb Community College has seven areas of study to launch your career and shape the future of technology.

COMPUTER APPLICATIONS

IT Professional: gain knowledge in Windows-based applications, web design, programming and networking

COMPUTER NETWORKING

Networking Specialist—Cisco Network Professional: focuses on the Cisco Networking Academy, wired and wireless networking technologies, network security and troubleshooting techniques

Networking Specialist—Network Security Professional: tools and techniques used to safeguard the communications networks of an organization from unauthorized access

PROGRAMMING

Programming: creation of custom software using languages such as C++, C#, Java and the .NET Framework

Programming for Electronic Games: creation of computer games for multiple potential audiences, whose target uses include entertainment, training and scenario planning (simulation)

WEB AND INTERNET TECHNOLOGIES

Website Programming: creation of interactive websites utilizing programming tools such as JavaScript, ASP.NET and PHP—this specialty supports the creation of e-commerce websites

Cloud Computing: develop, deploy and maintain cloud computing, storage, networking and management systems that provide users immediate access to data and applications from any device connected to the internet

For general information about
Macomb Community College:

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