Brooklyn College  
Department of Computer and Information Sciences

CISC 3665 [54.2] Game Design  
3 hours; 3 credits

Introduction to designing computer games for a variety of hardware platforms. Fundamentals of designing, programming and troubleshooting simple games. Porting game software between multiple game consoles. Documenting and critiquing design. Multi-week small-group projects in game design.

Objectives

At the end of this course, students should have demonstrated the ability to:

1. Present the basic history and genres of games
2. Describe the overall game design process
3. Explain the design tradeoffs in game design for a variety of game consoles
4. Explain the issues involved in software portability
5. Design and implement a three-dimensional video game
6. Work effectively on a team or in a working group.
7. Describe and explain technical topics to others orally and in writing.

Syllabus:

The course is organized around 7 curricular units, each focusing on a different game design topic. An important feature of the course is the practical work.

The material covered in the course will include:

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<th>unit</th>
<th>weeks</th>
<th>Topic</th>
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<tr>
<td>1</td>
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<td>History and genres of games</td>
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<td>• Introduction to game consoles</td>
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<td>2</td>
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<td>Designing the game</td>
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<td>• Creating good game design documents</td>
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<td>• Begin working with the first game console, e.g. Nintendo Wii Remote</td>
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This course incorporates lectures, readings and seminar-type discussions. Individual class assignments lead students through the basic elements of game design for a variety of game consoles and platform, such as the Nintendo Wii, Sony PSP, and Xbox360. Games will be implemented in teams of 3-4 students. The course will also include practical classes that will involve students programming games in-class, illustrating the principles introduced in the lectures.

**Bibliography:**


• S. Rabin (ed), AI Game Programming Wisdom, Charles River Media, 2002

• Michael Zyda “Educating the Next Generation of Game Developers,” IEEE Computer, June 2006, pp. 30-34