

UMBC CMSC Game Development Track

The computer games industry has become big business. The Entertainment Software Association reports that the computer games industry made \$25.1 billion in revenue in 2010. With over 20 active studios, the Baltimore/DC metropolitan areas are a hotbed of game development. According to Game Developer magazine's annual salary survey, programmers in the games industry had an average annual salary of \$80,325 in 2010 and artists averaged \$70,785. UMBC students have gone on to work in leading companies such as Big Huge Games, Breakaway Games, Day One Studios, Epic Games, Firaxis, Mythic Entertainment, ZeniMax online studios and Zynga, as well as associated companies like AMD and Emergent.

Based on employer feedback, UMBC has created a game development track as an option for students pursuing a B.S. degree in Computer Science, and a concentration in animation and interactive media for students pursuing a B.A. degree in Visual Arts.

We believe that the track in CMSC will prepare a Computer Science major for technical positions in the game industry. At the same time, it emphasizes fundamentals that will be equally valuable in other types of positions. To satisfy the CMSC track, students should complete all of the regular CMSC B.S. requirements, plus the following (we've indicated which of these courses are planned in the next semester or two).

Non-Computer Science courses must include

- PHYS 121: Introductory Physics I (Spring 2012, Fall 2012)
- ART 380: History and Theory of Games (Spring 2012, Fall 2012)

CMSC 400-level electives must include

- CMSC 435: Computer Graphics (Spring 2012, Fall 2012)
- CMSC 471: Artificial Intelligence (Fall 2012)
- CMSC 493: Games Group Project (Spring 2012)

CMSC 400-level electives must also include two of the following

- CMSC 437: Graphical User Interface Programming
- CMSC 445: Software Engineering (Spring 2012)
- CMSC 455: Numerical Computation
- CMSC 461: Databases (Spring 2012)
- CMSC 479: Introduction to Robotics (Spring 2012)
- CMSC 481: Networks (Spring 2011)
- CMSC 483: Parallel Processing (Spring 2012)
- others as pre-approved by the program director (see gaim.umbc.edu/cmhc for a list)
- additional courses may be accepted if pre-approved with a written justification

In addition, in Spring 2012 we are offering a special topics course that can count toward your CMSC 400-level electives:

- CMSC 491: Special Topics in Computer Science: Graphics for Games

Check the web site <http://gaim.umbc.edu/> for more information, or contact the track director, Professor Marc Olano (olano@umbc.edu)

UMBC CMSC BS Game Development Track

CMSC Requirement

Games Track Requirement

