
UMBC CMSC Game Development Track

The computer games industry has become big business. The Entertainment Software Association reports that the computer games industry made \$22 billion in revenue in 2011. 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 \$93,251 in 2014 and artists averaged \$74,349. UMBC students have gone on to work in leading companies such as Bethesda Softworks, Breakaway Games, Day One Studios, Epic Games, Firaxis, Mythic Entertainment, Stardock, ZeniMax online studios and Zynga, as well as associated companies like AMD, Emergent, and Organic Motion.

Based on employer feedback, in 2007 UMBC created two game-focused programs. A game development track as an option for students pursuing a BS degree in Computer Science, and a concentration in animation and interactive media for students pursuing a BA or BFA 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 BS 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 (every semester)

CMSC 400-level electives must include

- CMSC 435: Computer Graphics (every semester)
- CMSC 471: Artificial Intelligence (every semester)
- CMSC 493: Games Group Project (every spring)

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

- CMSC 437: Graphical User Interface Programming
- CMSC 448: Software Engineering
- CMSC 455: Numerical Computation
- CMSC 461: Databases (every semester)
- CMSC 479: Introduction to Robotics
- CMSC 481: Networks
- CMSC 483: Parallel Processing
- others as pre-approved by the program director (see gaim.umbc.edu/cmssc for a list)
- additional courses may be accepted if pre-approved with a written justification

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

