Media/Creative Computing Track (DRAFT)

Track Description:

This track is intended for students wishing to prepare for entry-level positions in game engineering, animation programming, and media technology or graduate studies in those areas as well as research in entertainment uses of computing and HCI. Built upon the proposed HCI track, this track is an alternative to a graphics track for students excited by applications of computing in entertainment.

Why take this track?:

Game technology is hot. To anyone who has seen the massive job fairs at SIGGraph and game conferences, jobs in this area are currently in very high demand by companies such as Disney, Pixar, SKG/Dreamworks, Electronic Arts, Lucas Arts, and other large media and game companies. UC Santa Cruz has recently inaugurated a BS in Game Engineering degree program. In its first year, it has proven to be wildly popular. Its core coursework in math and computer science is almost identical to their BS in Computer Science; there are a few changes to the CS curricula to make it more specific to games, along with the addition of a few new classes. While our track is not strictly a game engineering program such as the UC Santa Cruz program, it should attract a number of additional majors to our program, who should be able to bring their skills to high-visibility employers.

However, the bigger picture is that this track would be the core preparation for "creative class" computer scientists. Richard Florida has identified a new "creative class" of designers and technologists; he argues that most new hot trends and products are created by this creative class. (See http://creativeclass.com/ .) The course work in this track emphasizes facility with various media, integrated design of software and content, and thinking outside the box. Thus, as new cultural forms emerge that utilize digital technologies, students from this program will have an appropriate foundation to participate, or with further work at the graduate level, to lead.

Associated Faculty:

Dr. Yong Cao   Mr. Steve Harrison

Dr. Ed Fox

Suggested scheduling of courses in junior and senior year:

Junior Year

CS 3114	Data Structures and Algorithms	(3)___	CS 3304	Comparative Languages	(3)___
CS 2506	Intro to Computer Organization II	(3)___	CS 3214	Computer Systems	(3)___
CS 3724	Intro to Human Computer Interaction	(3)___	CS 3604	Professionalism in Computing	(3)___
Comm 2004	Public Speaking	(3)___	Stat 4705	Statistics for Engineers <u>or</u>	(3)___
Math 3134	Applied Combinatorics	(3)___		Stat 4714 Probability & Statistics for EE	
			Free Elective		(3)___
Total		15	Total		15

Senior Year

CS 41X4	Theory Course	(3)___	CS 4944	Senior Seminar	(1)___
CS 3/4XXX	Track-specific elective	(3)___	CS 4644	Creative Computing Studio	(3)___
CS 4634	Design of Information	(3)___	CS 4624	Multimedia/Hypertext	(3)___
Engl 3764	Technical Writing	(3)___	CLE Elective		(3)___
CLE Elective		(3)___	Free Elective		(3)___
Total		15	Total		13

Other recommended courses

Students should take free electives on related applications areas such as computer animation or film and video editing.

Art:

    (NOTE: Courses shown are currently only open to Art majors who have completed the art "foundations" lower division sequence and had portfolios reviewed. At this time, a tentative admission policy has been arranged, so openings for a limited number of CCTAD-affiliated students will be made available on a space-available basis who have reached the Junior level and completed either CS 4634 or the first CS course in computer graphics.)

        Art 2704 Intro to 3D Animation

        Art 3704 Topics in 3D Animation (pre-requisite - Art 2704) e.g., 3D character animation for cinema and gaming.

Communications:

        Comm 2054 Introduction to Film (CLE Area 6)

        Comm 3194 Film Production (pre-requisite: Comm 2054) Digital editing