Coming Spring 2015 Semester

Video Game Design and Development

University of Hawai‘i at Mānoa and West O‘ahu

The course teaches the theory and practice of video game design and development. Students will form multi-disciplinary teams, to design, build and demonstrate video games. Topics covered will include: gameplay design; software architecture and data-structures for video games; introduction to 3D and stereoscopic computer graphics and virtual reality; hardware architectures for video game systems; physical and perceptual limits of video game players; sound and psychoacoustics; real-time artificial intelligence techniques for games; multiplayer and networked game design; video game physics.

Class will be held in the new CyberCANOE\textsuperscript{1} in Mānoa (Kuykendall 204) and West O‘ahu (Library Computer Lab Rm. 233) on Wednesdays from 12pm-2:30pm.

Instructors
Jason Leigh (leighj@hawaii.edu) & Josiah Lebowitz (jtl9000@gmail.com)

How to Register
At Mānoa register for: ICS 491 Special Topics
At West O‘ahu register for: CM 385

Students at Mānoa who are not in Computer Science, please email Jason Leigh to get an override to register. In your email please indicate what department you are from and whether you are a junior, senior, or grad student.

Pre-Reqs for Art students:
Experience with Maya or Blender, and/or Photoshop or equivalent, or music composition.

Pre-Reqs for CS/Engineering students:
Students in Junior or Senior standing with experience in a modern programming language such as Java, Javascript, C#, C++.

\textsuperscript{1} Equipment for the CyberCANOE is funded by the Academy for Creative Media System. Design of the CyberCANOE is by the Laboratory for Advanced Visualization and Applications. Room for the CyberCANOE at UH Mānoa is provided by UH Mānoa’s Information and Technology Services.