

Graphics Education Lab

Mike Bailey, Ron Metoyer, Eric Mortensen, Eugene Zhang

Our Vision

In the 1980s and 1990s, it was said that *computer literacy* was the key to the economic future. This applied to individuals, companies, and to the country as a whole. But, we believe we have moved beyond that. Today, it is *visual computer literacy* that is the key to so much economic success. No matter where you turn, in fields as diverse as biology, chemistry, animation, art, mechanical design, natural resources, energy, and government, using computers as a way to construct and view visual representations is a crucial skill. As an institution whose goal is to create “work-ready” students, Oregon State University is making a major commitment to enhancing our students’ education in visual computer literacy by creating the Graphics Educational Lab. Our goal is to make courses in visual computing an integral part of *all* scientific and engineering majors.

Existing Courses To be Taught in the Lab:

CE 413/513	GIS in Water Resources
CS 450/550	Introduction to Computer Graphics
CS 551	Advanced Computer Graphics
CS 552	Computer Animation
CS 553	Scientific Visualization
CS 554	Geometric Modeling
CS 555	Signal and Image Processing
CS 556	Computer Vision
ME 453	CAD / Experimental Mechanics

New Courses Being Developed for the Lab:

- RenderMan and OpenGL Shaders
- Advanced Rendering
- 3D Computer Vision
- Advanced Animation
- Advanced Visualization
- Computational Geometry
- Curves and Surfaces
- Global Illumination in Rendering
- Math for Game Development
- Real-time Graphics Programming
- Special Effects

Hardware

- 24 Dual-core Pentium 4s
- 2 GB memory
- 500 GB local disk
- NVIDIA Quadro 4400 graphics
- 1400x1050 LCD Projector

Software

- RenderMan
- Maya
- Gelato
- Sketch-up
- OpenDX
- Vtk
- IronCAD

