

# Virtual World Development

## VIRTUAL WORLD DEVELOPMENT

### Course Description:

The course will address the conceptual architecture of virtual worlds, including software implementation, physiological and cognitive constraints, design of experience, and the mathematics and philosophy of inclusion. Topics include the development of software tools, editing and interaction techniques, the disposition of virtual world entities, the nature of space, situated knowledge, divergent models for multiple participants, experiential mathematics, cyberspace, and cultural, legal, moral and ethical issues.

During the Laboratory section, each student will design and construct a virtual world using CAD construction kits (AutoCAD, Wavefront, Alias, Swivel3D), dynamic simulation packages (Body Electric, VEOS), behavior transducers (position trackers, gloves, spaceballs, other interface devices), and computational resources (SGI 4D/320, DEC 5000/200, Sun 4).