

Architecture 507

Theories of Computer Technology

Tentative Course Description for Fall 2007

Updated 13 August 2007

“A computer-aided design system is most useful when the structured design inside the computer can be used for something besides merely producing a picture. As soon as the process of computer-aided design is considered as building a description of the object being designed rather than as a process of simply drawing the object, horizons become tremendously expanded.” Ivan E. Sutherland (1973)

Building Information Modeling (BIM) +

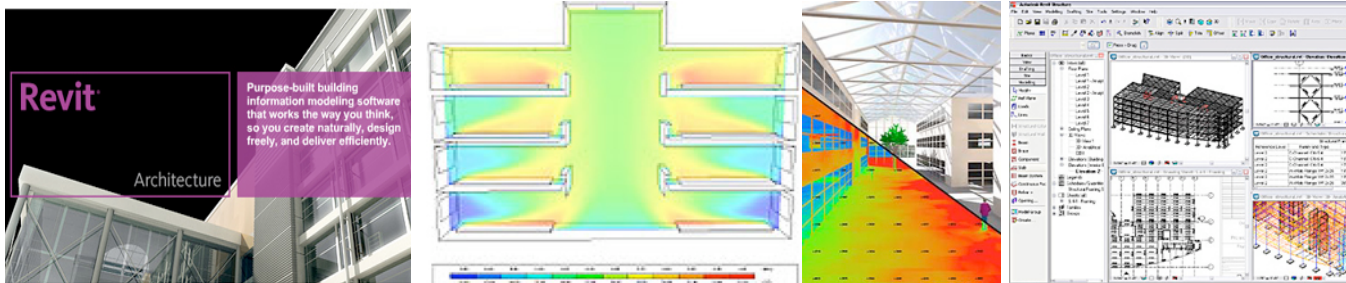
This semester, “Theories of Computer Technology” will focus on the quote from Ivan E. Sutherland. Essentially what Sutherland was proposing is system similar to a fairly recent development in computer software called building information modeling (BIM). Building information modeling (BIM) is one of the hottest topics in the architecture profession today. Learn what it is, how to apply it, and how it relates to sustainable design issues and structural engineering. This is a new course on a developing topic. Be employable and stay ahead of the technology curve!

The course is structured so that each student will be able to pick a specific topic area of interest for him/her to explore with the BIM connection, i.e. sustainability, LEED certification, structures, energy analysis, computational fluid dynamics, construction phasing, scheduling, material costs, etc.

This course is applicable to upper division undergraduate students and graduate students who have a strong background in traditional CAD and three-dimensional modeling. The course applies to the MBS graduate certificate if you are a graduate student. The primarily software used will be Revit Architecture. Other programs will also be used.

Because of the rapid advancements expected in the technological underpinnings of the course, every effort is made to provide instruction that adjusts to current conditions and is generic to computer hardware and software platforms. Although offered in the School of Architecture, the techniques taught are equally applicable to others with an interest in the applications of building information modeling. Building science majors, structural engineering students, construction management students, and others are strongly encouraged to enroll. It is assumed that students have a basic understanding of 2D CAD and 3D digital modeling. Please email the instructor if you have questions. kensek@usc.edu

Architecture 507 (#11280 D) is a three unit course that meets for the entire semester. It meets on Fridays from 9 am – noon.



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