This page contains text about a course titled "Introduction to Computer-aided Architectural Design" (CAAD). The course is offered in Fall 1998 on Mon and Wed from 12:00 to 1:30 pm in the CDA Lecture Room. The instructor is Kostas Terzidis, with office hours on Mon and Wed from 2:00 to 3:00 pm or by e-mail (anytime). Class notes can be accessed through the URL http://cad.aud.ucla.edu/, username: arch226, password: cda123. The Teaching Assistant (T.A.) is Behn Samareh, with e-mail: behn@aud.ucla.edu. Lab hours are on Thursday from 12:00 to 2:00 pm.

The course, titled 226A, introduces basic concepts, skills, and theoretical aspects of Computer-Aided Architectural Design (CAAD). The main objective is to meet the needs of students with little or no microcomputer skills and provide them with generalized skills and structured knowledge. The applications selected are commonly found in professional offices, and students will also pick up specific skills related to particular Macintosh and Windows-based packages which they are likely to encounter in their careers.

The course is divided into two parts: the first part for the fall quarter covers issues related to two- and three-dimensional representation, including painting, drafting, multimedia, hypermedia, modeling, and basic VRML. The second part, for the winter quarter, focuses on rendering, animation, and advanced VRML. The course will also cover research overview of solid modeling, a close view of cyberspace and virtual reality, different techniques for texture mapping, and ways for creating animated pictures of architectural spaces.

The software packages used in the course include Photoshop (image processing), Morph (image morphing), AutoCAD (drafting), PageMill (Hypermedia), FormZ (solid and void modeling), 3D Studio MAX/Softimage (rendering and animation), and Cosmo Worlds/Player (Real-time animation).

In addition, theoretical aspects of CAAD will be presented and discussed. This will provide students with general information about the theory, history, and research related to CAAD. The intention is to make the students think and understand beyond the limits of a specific application and to give them the theoretical background to be able to acquire and critically evaluate new knowledge in the area of CAAD.
SCHEDULE FOR FALL 1998

**Week 1:**  October 5 and October 7  
Topics:  Course overview, computer hardware, internal operations, storage devices, basic concepts of software, selecting a computer to use.  
Lab:  Tour of the lab, what is an operating system, MacOS, Windows basic commands

**Week 2:**  October 12 and 14  
Topics:  Paint fundamentals, photoshop operations, and morphing  
Lab:  Scan a project and analyze  
**Project 1:** Scan a picture, edit, and morph.

**Week 3:**  October 19 and 21  
Topics:  Multi-media, hyper-media, and the Internet  
Lab:  Use of e-mail, Netscape, Internet explorer, and ftp  
**Project 2:** Use e-mail, browse the W3, and create a home page

**Week 4:**  October 26 and 28  
Topics:  Draft fundamentals, differences between pixel and object-oriented systems, databases, symbols and libraries  
Lab:  AutoCAD file, draw, and edit operations  
**Project 3:** Digitize a drawing, edit, and present.

**Week 5:**  November 2 and 4  
Topics:  Form related approaches in computational design, typology, transformation (morphing), shape grammars, artificial intelligence approaches to arch design, desktop publishing, slide presentations  
Lab:  Presentation techniques, electronic portfolios

**Week 6:**  November 9 and 11  
Topics:  Midterm Exam - 3D Space - The concept of a model - FormZ: Basics  
Lab:  formZ tutorial

**Week 7:**  November 16 and 18  
Topics:  FormZ: Building a model - Step-by-step tutorial - Advanced features  
**Project 4:** Create a 3D model (historical building)

**Week 8:**  November 23 and 25  
Topics:  Modeling techniques: 3D Studio MAX  
Lab:  Representation, editing, and visualizing models in 3DS max

**Week 9:**  November 30 and December 2  
Topics:  Transferring files between different programs and/or computers - 3D internet - VRML basics  
Lab:  Storage devices and file transferring

**Week 10:**  December 7  
Topics:  Take home final exam