Class Times:

March 27th-March 31st: 8:30-11:30 am, and 1-4 pm.
Saturday April 1st: 8-11 am: Project presentation
Saturday April 8th: 8-11am: Mid term project demo, final take home due
Saturday April 15th: 8-1pm: Final Project Demo

Prerequisite: Introduction to Graphics (CS480/580), or Analysis of Algorithms (CS472/572), or Consent of the instructor.

The emphasis of this course is on designing and analyzing efficient geometric algorithms. Familiarity with CS480/580 (Introduction to Graphics) and CS472/572 concepts (Design and Analysis of Algorithm) is expected but not required. The class is open to graduate and undergraduate students. The one week format may also be ideal for those students who might be considering entering graduate school and would like to take a three credit house Computer Science class at the graduate level. Interested students are encouraged to contact Dr. Semwal (Semwal@eas.uccs.edu) if there are any questions.

Term projects would focus on understanding and implementing geometrical algorithms for a particular area within the computational geometry field and includes applications in graphics, games, animation, and virtual reality, and other related areas. The term project would have both a research and implementation component. OpenGL, Maya or MathLab could be use for implementing the project.

Mid-Term in-class exam is scheduled for March 29th. Final take-home is due on April 8th, 2006. More syllabus details will be provided on the first day of class.

Text-books:
Main Text: Computational Geometry : Preparata and Shamos Springer-Verlag. Selected algorithms from related areas in Virtual Reality, graphics etc. would be analyzed as special topics.

Grade Distribution: Term Project: 40%; MidTem Exam:25%; Final Exam: 25%; Homework: 10%.

Any Questions: Contact Dr. Semwal (Semwal@eas.uccs.edu; Ph: (719)262-3545).

See also www.cs.uccs.edu/~semwal click on “Spring Break 2006: CS 575 Computational Geometry”