

CSE 784: Geometric Modeling
Spring 2008
(Tentative Syllabus)

| Lectures | Materials |
|----------|---|
| Mar 25 | Introduction to curves |
| Mar 27 | Bezier curves I |
| Apr 01 | Bezier curves II |
| Apr 03 | Subdivision curve |
| Apr 03 | B-splines I |
| Apr 08 | B-splines II |
| Apr 08 | Matrix Forms |
| Apr 10 | Matrix based subdivision |
| Apr 10 | More on curve modeling |
| Apr 15 | Basic surface topology |
| Apr 15 | Surface equations and curvatures |
| Apr 17 | Bezier surface I |
| Apr 17 | Bezier surface II |
| Apr 22 | de Casteljau for Bezier surface |
| Apr 22 | B-spline surfaces I |
| Apr 24 | Midterm |
| Apr 29 | B-spline surfaces II |
| Apr 29 | Biquadratic B-spline subdivision |
| May 01 | Doo-Sabin subdivisions |
| May 06 | Bicubic B-spline subdivision |
| May 06 | Catmull-Clark subdivision |
| May 08 | B-rep and Boolean Ops. |
| May 08 | CSG representation and Euler Ops. |
| May 13 | Voronoi Diagram and Delaunay Triangulations |
| May 15 | Curve Reconstruction I |
| May 20 | Curve Reconstruction II |
| May 22 | Decimation I |
| May 27 | Multiresolution |
| May 29 | Wrap-up |

Instructor: **Tamal K. Dey**, Room: **483 DL, 292-3563**.

Office hours: **TR 2:30-3:00 pm. or by appointment**

Web-page: <http://www.cse.ohio-state.edu/~tamaldey/course/784/syllabus.html>