

Nipissing University  
 Department of Computer Science & Mathematics  
**MATH 2216 - Computational Geometry I**  
 Winter 2012

Schedule of Lectures

Date	Topic	Homework
Jan 09	Introduction to the course	
Jan 11	Algorithms: Representation and Efficiency, Asymptotic Notation	
Jan 16	Section 1.1 Convex Hull Algorithms	
Jan 18	Section 2.1 Line Segment Intersection	
Jan 23	Section 2.2 Doubly-Connected Edge List	
Jan 25	Section 2.3 Computing the Overlay of Two Subdivisions	
Jan 30	Section 2.4 Boolean Operations, Discussion of the Exercises for Chapter 2	
Feb 01	Section 3.1 Guarding and Triangulations	
Feb 06	Section 3.2 Partitioning a Polygon into Monotone Pieces	
Feb 08	Section 3.3 Triangulating a Monotone Polygon	
Feb 13	Chapter 3 Exercises and Discussion	HW#1 Due
Feb 15	Section 4.2 Half-Plane Intersection	
Feb 20	Study Week	
Feb 22	Study Week	
Feb 27	Section 4.3 Incremental Linear Programming	HW#2 due
Feb 29	Section 4.4 Randomized Linear Programming	
Mar 05	Section 4.7 Smallest Enclosing Disks, Discussion of the Exercises for Chapter 4	
Mar 07	Section 5.1 1-Dimensional Range Searching	
Mar 12	Review for the Midterm	
Mar 14	Midterm Exam	
Mar 19	Section 5.2 <i>kd</i> Trees	HW#3 due
Mar 21	Section 5.3 Range Trees	
Mar 26	Section 5.4 Higher-Dimensional Range Trees	
Mar 28	Section 5.6 Fractional Cascading	
Apr 02	Discussion of the Exercises for Chapter 5	
Apr 04	Course Review	HW#4 due

The schedule is subject to adjustments by the instructor