

MA 714
Topics in Discrete Mathematics
Fall 2013
MWF 1–1:50 pm — CB 345

Instructor: Carl Lee.

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Office Hours: MWF 9:00–9:50, and also by appointment, since I realize that this time may not be convenient for everyone.

Course Web Page: <http://www.ms.uky.edu/~lee/ma714fa13/ma714fa13.html>.

Course Description: Graduate seminar. The study of convex polytopes has enjoyed significant growth over the last 50 years, partly stimulated by wonderful connections with linear programming and combinatorial optimization, abstract algebra, discrete mathematics, and computational geometry. In this course we will encounter some of these more recent results and connections, drawn from topics such as

- Structure and Representation.
- Face Numbers and Flag Numbers.
- Algebraic Connections.
- Stress and Rigidity
- Triangulations

Some references: Ziegler, *Lectures on Polytopes*, Springer. Grünbaum, *Convex Polytopes*, Springer.

Student Learning Outcomes: Students will prove theorems and solve problems in convex polytopes, and communicate their results orally and in writing.

Attendance and Participation: Attendance and active participation is expected, and is the primary component of the course grade. Refer to S.R. 5.2.4.2, <http://www.uky.edu/StudentAffairs/Code/part2.html>) for information on University policy on absences, plagiarism, and cheating. Refer to the Disability Resource Center for campus disability services available to students with disabilities.

Important Dates:

August 27 — Tuesday — Last day a student may officially drop a course or cancel registration with the University Registrar for a full refund of fees.

August 28 — Wednesday — First day of classes.

September 2 — Monday — Labor Day — Academic Holiday.

September 4 — Wednesday — Last day to add a class for the 2013 Fall Semester.

September 4 — Wednesday — Last day to officially withdraw from the University or reduce course load and receive an 80 percent refund.

September 18 — Wednesday — Last day to drop a course without it appearing on the students transcript.

September 25 — Wednesday — Last day to officially withdraw from the University or reduce course load and receive a 50 percent refund.

October 21 — Monday — Midpoint of 2013 Fall Semester.

November 8 — Friday — Last day to withdraw from the University or reduce course load. Students can withdraw or reduce course load after this date only for urgent non-academic reasons.

November 27–30 — Wednesday through Saturday — Thanksgiving — Academic Holidays.

December 13 — Friday — Last day of classes.