

Syllabus – MATH 777

Prof. Joshua Cooper, Spring 2008

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Course Homepage: <http://math.sc.edu/~cooper/math776/>

Main Text: Diestel, *Graph Theory*. A free PDF of this thorough and very reliable text is available on the course website. Buy if you like it, as they say.

Supplementary Reading: Alon & Spencer, *The Probabilistic Method*; Bollobas, *Extremal Graph Theory*.

Class: Monday, Wednesday & Friday 2:30PM – 3:20PM, LeConte (LC) 303B

Office Hours: Wednesday 3:30PM – 5:00PM or by appointment.

Course Material: Fundamentals of graph theory. Cycles, paths, trees, graph invariants, connectivity, matchings, planarity, coloring, flows, hamiltonicity, regularity, minors, extremal graphs, Ramsey Theory. The pace of material (and therefore how much we cover) will be determined on-line.

Note: The last day to drop classes without incurring a “W” is 1/18, and the last day to drop classes without incurring a “WF” is 2/25.

ADA: If you have special needs as addressed by the Americans with Disabilities Act and need any assistance please notify me immediately.

Attendance: You are expected to attend every class. The bar is stratospheric for exam rescheduling or omission. If you *have* to leave before class is over, the correct procedure is to mention this to me before class. It is impolite and disruptive to leave class during a lecture unless you have followed this procedure.

Grade Breakdown: 50% from Problem Sets, 50% from Final Exam.

Grading scale: $A \in [90, 100]$, $B+ \in [86, 90)$, $B \in [80, 86)$, $C+ \in [76, 80)$, $C \in [70, 76)$, $D+ \in [66, 70)$, $D \in [60, 66)$, $F \in [0, 60)$.

Problem Sets: Problem sets will be assigned periodically (generally at the start of a new chapter), announced, and posted on the website. They will consist of some problems drawn from the end of the indicated chapters in Diestel, and some others which are not. All problems will be assigned equal value. Problem sets are due by the expiration date on the posted problem set and will not be accepted after that point. You are generally expected to provide complete, rigorous solutions in order to receive credit. Homework will be accepted in handwritten or LaTeX format, but the latter is worth 5 extra points (each time).

Final Exam: The content of the exams will be drawn from lectures and from the text. Keep in mind that you are responsible for *all* material covered in class, even if it does not appear in Diestel. No electronic devices, including calculators, are permitted in the exams. The final exam will be held on Thursday, May 1 at 2:00 p.m..