

# Welcome to MAD 5205 Combinatorics & Graph Theory II

Lecturer: [Zixia Song](#)

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Lecture: TR: 4:30-5:45pm in MAP 407

Office Hours: TR 2:30-3:30pm, or by appointment.

**Textbooks:** Introduction to Graph Theory (2<sup>nd</sup> edition) by Douglas B. West

Introductory Combinatorics (4<sup>th</sup> edition) by Richard Brualdi

**Prerequisite:** MAD 4203 Combinatorics & Graph Theory I

## Lecture Schedule:

1. Graph theory topics I (degree sequences, Hamilton cycles, spanning trees, connectivity, network flows, matchings )
2. Combinatorial designs
3. Polya's theory of counting
4. Graph theory topics II (coloring, planarity, Ramsey Theory, Extremal problems)

**Midterms:** Tentatively scheduled for [Thursday, February 23](#), and [Thursday, April 6](#). There will be no make-ups.

**Final exam:** [Thursday, April 27, 4:30-5:45](#) in the usual classroom.

**Grades:** 40% midterms, 40% final, 20% homework and/or quizzes.

**Regrading policy:** If you believe that a mistake in grading has been made you may request that your paper be regraded. Such request must be submitted in writing within one week from the day the graded test has been returned in class, and must be accompanied by the original unaltered paper. If you make any changes to the paper your request will be denied. Please note that if you request regrading, all problems are subject to review.

**Attendance:** Attendance at lectures is required.

**Homework:** Homework will be usually assigned in class on Thursday, and will be due the next Thursday. Samples will be graded.

**Honor code:** Please refer to the University Golden Rules. You are encouraged to study in groups, but any and all work submitted for grading, including homework, must be your own.

**Course information:** This text can be accessed at <http://www.math.ucf.edu/~zxsong/MAD5205/>.