

## Syllabus of Combinatorics, 2015 Fall, USTC

**Lecture Time:** Monday 2:00PM–4:25PM, Wednesday 2:00PM–3:35PM

**Lecture Location:** 3C324

**Instructor:** Jie MA

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**Teaching assistants:**

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**Covered Materials:**

Our course will give a broad introduction to combinatorics. The materials loosely can be divided into following parts: enumeration (i.e. elementary counting, inclusion-exclusion, generating functions and recursive relations), basic graph theory, pigeonhole principle (including Ramsey theory), double-counting, extremal combinatorics (including Posets, Sperner's Lemma and Turan's Theorem). If time permits, we will also talk about the probabilistic methods and the algebra methods in combinatorics.

**Course Home Page:** <http://staff.ustc.edu.cn/~jiema/Comb2015/>

Homeworks and course announcements will be posted in the Course Home Page. Lecture outlines also will be updated there during the semester.

**Homeworks:**

There will be weekly assignments during the term. Students are required to submit homework in the beginning of class on **every Monday**. It is highly recommended to write English solutions using latex.

**Tests and Final:**

There will be one midterm. Closed book, closed notes and NO calculator for all exams.

**Grading Scheme:**

**Homeworks (20%)+ Midterm (30%)+ Final (50%).**