

Syllabus for MATH 220
Finite Mathematics: Number Theory, Combinatorics, and Graphs
Summer 2009

This syllabus is subject to change; students who miss class are responsible for learning about any changes to the syllabus.

Time and Location:

1:00PM - 2:45PM MTWRF– from July 13 to August 13 at Room 215, Cupples One Hall

Instructor: Baili Min

Office: Room 211, Cupples One Hall

Email: minbaili@gmail.com

Course Web Page: <http://www.math.wustl.edu/~minbaili/2009su220.html>

Office Hours: TBA

Text:

I will use my own notes so you don't need to buy any textbook. But if you want to have some books for reference, for your information, my lectures will be based on the following book:

Discrete Mathematics for Computer Science by Kenneth Bogart, Clifford Stein and Robert L. Drysdale. ISBN 1-930190-86-7.

There are some good examples in this book: *Finite Mathematics: an Applied Approach* by Sullivan and Mizrahi, tenth edition. ISBN 0-471-32899-5

You don't need to purchase them.

Prerequisites:

Arithmetic and high school algebra. No knowledge of calculus, trigonometry, or geometry is required.

Course Description and Materials to be Covered: This is an introduction to some topics in finite Mathematics: number theory, combinatorics and graph theory. We will see both theories and applications.

In the book of *Discrete Mathematics for Computer Science*, the correspondent sections are Chapters 1, 2 and 6.

Homework

There are daily homework and exercises for you to practise. One tip for learning math well is: understand the materials and do exercises. No shortcuts, unfortunately. :(

Exams:

We have three main topics, so we have three exams to cover them respectively. The schedule is:

- Exam 1, Number Theory: July 23, Thursday
- Exam 2, Combinatorics: August 4, Tuesday
- Exam 3, Graph Theory: August 13, Thursday

Grading:

For the final grade, homework counts 70 percent and three exams count 30 percent(each exam counts equally 10 percent).

Finally you will be assigned a letter grade. The guideline is like this:

- Greater or equal to 85: A
- Greater or equal to 75 but less than 85: B
- Greater or equal to 65 but less than 75: C
- Greater or equal to 60 but less than 65: D
- Less than 60: F :(