

Course Outline - Math 118

Fall 2011

Class 1 - August 24

Lecture: Course Information ([Syllabus](#))
Sets, Operations, Venn diagrams, Subsets (2.1, 2.2)
The Fundamental Counting Principle (12.1)
Geometry of angles (7.2)

Homework: [Problem Set 1](#) and [Questions](#)

Also posted: [Quiz 1 Review](#)

Class 2 - August 31

Lecture: Permutations (12.1)
Complement of a set, Difference of sets (2.2)
Applications of Sets (2.3), Sum of angles in a polygon (7.2)
[Basic percent problems](#) (6.8)

Homework: [Problem Set 2](#)

Also posted: [Quiz 2 Review](#)

Class 3 - September 7

Lecture: Combinations (12.2), Perimeter (9.1),
Area of a rectangle and a right triangle (9.2)
Counting rectangles in a grid, Simple interest (11.1)

Homework: [Problem Set 3](#)

Also posted: [Quiz 3 Review](#)

Class 4 - September 14

Lecture: Simple Interest (11.1), Tossing the coin n times

Also posted: [Exam 1 Review](#), [Answers to Problem Sets 1, 2, 3](#)

Class 5 - September 21

Lecture: Area and perimeter (9.1, 9.2)

Exam 2

Homework: [Problem Set 4](#)

Also posted: [Quiz 4 Review](#)

Class 6 - September 28

Lecture: Natural numbers (5.1), Integers (5.3), Rational Numbers (5.4)
Irrational Numbers (5.5), [Pythagorean Theorem](#) (5.5)

Homework: [Problem Set 5](#)

Also posted: [Quiz 5 Review](#)

Class 7 - October 5

Lecture: Compound Interest (11.1), [Fractions and Decimals](#)

The decimal presentation of rational and irrational numbers (5.6)

Also posted: [Quiz 6 Review](#)

Class 8 - October 12

Lecture: Installment Buying (11.2), Introduction to Probability (13.1)

Also posted: [Exam 2 Review](#), [Answers to Problem Sets 4, 5](#)

Class 9 - October 19

Lecture: Volume (9.3), **Exam 2**

Homework: [Problem Set 6](#)

Also posted: [Quiz 7 Review](#)

Class 10 - October 26

Lecture: Present value of future events (11.1), Computing Probabilities (13.3)

Homework: [Problem Set 7](#)

Also posted: [Quiz 8 Review](#), [Essay Assignment](#)

Class 11 - November 2

Lecture: Mathematical Expectation (13.2) The binomial theorem (12.2)

Also posted: [Quiz 9 Review](#)

Class 12 - November 9

Lecture: [Similar Triangles](#) (7.4)

Also posted: [Exam 3 Review](#), [Answers to Problem Sets 6, 7](#)

Class 13 - November 16

Lecture: Number Theory: divisibility rules for 2, 3, and 9

Exam 3

Homework: [Problem Set 8](#)

Also posted: [Quiz 10 Review](#)

Class 14 - November 23

Lecture: Binomial probability (13.5), volume of truncated objects

Also posted: [Final Exam Review - A](#), [Final Exam Review - B](#), [Extra Credit Assignment](#)

Class 15 - November 30

Final Review

Class 16 - December 7

Final Exam