

## FALL 2008: MATH 181 – A MATHEMATICAL WORLD

### General Information.

Instructor:	Tom Cooney
Email:	tcooney@math.uiuc.edu
Office:	150 Altgeld Hall
Class Webpage:	<a href="http://www.math.uiuc.edu/~tcooney/math181">http://www.math.uiuc.edu/~tcooney/math181</a>
Lecture Room and Time:	143 Altgeld at 9 a.m. on MWF
Deadline to Drop:	Friday, October 17th
Textbook:	<i>For All Practical Purposes: Mathematical Literacy in Today's World, 7th Edition</i>
Office Hours:	MWF at 2pm or by appointment.

**Grading.** Grades will be determined as follows:

- 10% for weekly homework assignments.
- 15% for weekly quizzes.
- 45% =  $3 \times 15\%$  for three midterm exams.
- 30% for the final exam.

You can check your grades at <http://compass.uiuc.edu>.

Grades will be based on the following:

	66.7–69.9	D+	76.7–79.9	C+	86.7–89.9	B+	96.7–100	A+	
0–59.9	F	63.4–66.6	D	73.4–76.6	C	83.4–86.6	B	93.4–96.6	A
		60–63.3	D–	70–73.3	C–	80–83.3	B–	90–93.3	A–

**Attendance.** I expect your attendance at every class.

**Homework.** Homework assignments will be announced in class and posted on the webpage. They will usually be collected at the start of Friday's class. A selection of the problems will be graded. All homework should be neat, easy to read, and stapled (if more than one page). If you do not follow these instructions, I reserve the right to give you **no credit** for your work. Make sure to explain your work and to present it in a logical order.

You may work in groups on your homework but each of you must hand in your own work, in your own words. **Answers that correspond with those of your classmates verbatim are not acceptable.**

**Quizzes.** There will be weekly quizzes and the lowest quiz score will be dropped at the end of the semester. These will usually last 15 minutes and be held at the start of Friday's class. There will be no make-up quizzes.

**Exams/Final.** We will have three exams, not including the final. They will be held in class on or around October 3rd, October 31st and December 5th. The final exam will be cumulative. **Calculators will not be allowed on any exams.**

**The Final Exam is on Monday, December 15th from 1:30–4:30 p.m..**

**Policies.** If you have a personal problem (an illness, accident, or family crisis) which prohibits you from participating in any aspect of this course, you need to have the Emergency Dean send me a letter to excuse you from your absences. You can contact the Emergency Dean at (217) 333-0050. Visit <http://www.odos.uiuc.edu/emergency/> for more information. Remember, you miss school, you miss out!

This course adheres to the University's Student Code Part 4 Policy on Academic Integrity. **Cheating of any kind will be dealt with harshly.** One potential punishment is an immediate F in the course and a letter being placed in your permanent school file.

**Course Overview.** This course satisfies the General Education Criteria for a Quant Reasoning I Course. It is an introduction to selected areas of mathematical sciences through application to modelling and solution of problems involving networks, circuits, trees, linear programming, random samples, regression, probability, inference, voting systems, game theory, symmetry and tilings, geometric growth, comparison of algorithms, codes, and data management.

Prerequisite: Three years of high school mathematics, including two years of algebra and one year of geometry.

The following is a rough guide to the material we will cover this semester:

- Management Science: Chapters 1, 2
- Voting and Social Choice: Chapters 9, 10, 11
- Fairness and Game Theory: Chapters 13, 14
- This list may change.

**And finally...** I'm looking forward to getting to know you all. Come talk to me in office hours or email me to make an appointment. I'm here to help! **Have a great semester!**