Mathematics 5
Course Syllabus
January 1, 2008

Dwight Lahr

The list of topics below will give you some idea of the tentative schedule for Mathematics 5 this Winter. However, the topics may change depending upon the interests of the class, and if so, we will modify the schedule and agree on a new version. The chapter references are to the draft manuscript *Mathematics and Knowledge: Models of Reality* by Dwight Lahr.

	Week	Topics	References
#1	Jan 7, 9, 11	Visualization, Quantification, Abstraction	Chapter 1
#2	Jan 14, 16, 18	Abstraction, Idealization, Truth, Logic	Chapter 1, Chapter 2
#3	Jan 23, 24**, 25	Connectives, Thms, Prfs, Paradoxes	Chapter 2
#4	Jan 28, 30; Feb 1	Infinity, Zeno's Paradoxes	Chapter 6
#5	Feb 4, 6	Primes('), Congs., Fermat's Little Thm	Ch. 3 (3.4, 3.5, 3.14, 3.15)
#6	Feb 11, 13, 15	Euler's Thm, Codes(')	Chapter 4
#7	Feb 18, 20**, 22	RSA Algorithm	Chapter 4
#8	Feb 25, 27, 29	Einstein, Energy, $E = mc^2$	Chapter 9 (9.10 and 9.11)
#9	Mar 3, 5, 7	$E = mc^2$;Wrap up; evaluations	Final Paper due Mon, 3/10

Notes:

* Week #3: MLK holiday on Monday, 1/21 (x-hour 1/24: Thursday, 12:00-12:50—quiz)
  Week #6: Winter Carnival on Friday, 2/8 (no class that day)

** Quizzes: Thursday, January 24; Wednesday, February 20.

Final seven-page paper due on first day of finals: Monday, March 10.

Special schedules: MLK holiday   Meet in x-hour in week #3
                    Winter Carnival   No class on Friday in week #5

(') Check out the Prime Reference webpage *primes.html* on the Math 5 website for links on the web to information about primes. Also look at the RSA website *www.rsa.com* for information about the RSA Public Key algorithm for encoding and decoding messages.
(") Use the library's Math 5 Guide to Library Research at
     http://www.dartmouth.edu/~krescook/instruct/math5.W08.shtml