Notes on Exam 3, Math 554, Summer 2005

1. Exam 3 is Thursday June 16 and it covers sections 2.1, 2.2, 2.3, 2.4, 2.6, and 3.1.

2. Be able to define "sequence", "the sequence converges", "the limit of a sequence", "monotone increasing", "monotone decreasing", "monotone", "limit point", "Cauchy sequence", "open set", "closed set", "closure", and "dense set".

3. Be able to STATE: the theorem about monotone sequences, the nested interval property, a version of the Bolzano-Weierstrass Theorem, the theorem about Cauchy sequences, the theorem which characterizes the closed sets of $\mathbb{R}$ in terms of information about the limit points.

4. The material on the old exams which is covered on your exam 2:
   (c) Exam 2 (2000): 1, 7, 8.
   (c) Exam 2 (2004): 4, 6, 7, 8, 9, 10.
   (c) Exam 2 (2005): 3, 4, 5, 7, 9.
   (d) Exam 3 (2000): 1, 2, 3, 4, 5, 6, 7.
   (d) Exam 3 (2004): 1, 2, 3, 4, 5, 6, 7, 8, 9
   (d) Exam 4 (2000): 1, 6, 7.
   (d) Exam 4 (2004): 1, 2, 3.
   (e) Final Exam (2000): 1, 4, 6, 8, 12, 13.
   (e) Final Exam (2004): 1, 4, 5, 6, 14, 15, 16.