MA 202 Mathematics for Elementary Teachers
Spring, 2005

Course Instructors:
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(Mathskeller) and by appointment

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Mr. David Watson, Patterson Office Tower 902,
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Purpose of the Course: This course is to deepen the
current understanding of mathematics that is needed for
teaching elementary or middle school mathematics and to do
so in a way that emphasizes the national and Kentucky
standards and principles for school mathematics. There
will be student interactions during class and inquiry based
learning will be used. Examples coming from actual K-6
student work will be included.

Prerequisites: MA 109, 201 or equivalent.

Text: Mathematical Reasoning for Elementary Teachers, by
Calvin Long and Duane DeTemple, third edition. (This was
the text for MA 201 last semester.)

Grading Policy: There will be three in class exams, a
final, and an oral group presentation (which will also have
an individual writing component in it.) Homework will be
collected and a grade assigned on each based on a selection
of the problems assigned. Note: The final exam will be
cumulative and given during UK scheduled finals week.
Should a student miss an exam, notifying the instructor as
soon as possible (preferably before the exam), the final
exam can be used as that exam. This procedure will be
followed only in the case that the reason for not being
present at the exam is an allowable University excuse. The final grade will be computed as follows:

- Homework: 10%
- 3 Exams (total): 45%
- Comprehensive Final: 30%
- Presentation/Paper: 15%

The exam schedule, which is approximate, is

- Exam 1: Week of Feb. 10
- Exam 2: Week of March 10
- Exam 3: Week of April 12
- Final Exam: Week of May 2.

A detailed description of the presentation project and writing assignment will be given three weeks before it is due. Please note that the exams will be given in class. Students are advised to attend class. Attendance is mandatory during the group presentations.

**Homework:** Homework must be handed during class on the day it is due in order to be graded. Calculators will be allowed on exams but not the final. On the other hand, cheating on exams and other forms of academic dishonesty are not acceptable. The minimal grade for cheating, according to UK policy, is an E in the course.

**Coverage of Text:** Chapters 8 through 13 of the book will be covered in order, omitting sections 11.4 (networks) and the Jordan Curve Theorem (p. 679). There could be changes during the course of the semester.

1/12/05
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Number of Weeks</th>
<th>Tuesday of the Week</th>
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</thead>
<tbody>
<tr>
<td>8, Algebra</td>
<td>2</td>
<td>Jan. 11, 18</td>
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<tr>
<td>9, 10, Statistics, Prob</td>
<td>5</td>
<td>Jan 25, Feb. 1, 8, 15, 22*</td>
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<tr>
<td>Exam 1</td>
<td>Thursday, Feb. 10 (yes, in the middle of 9 and 10)</td>
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<tr>
<td>11, Geom. Figures</td>
<td>2</td>
<td>March 1, 8</td>
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<tr>
<td>Exam 2</td>
<td>Thursday, March 10</td>
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<td>Spring Break, March 14-18</td>
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<tr>
<td>12, Measurement</td>
<td>2</td>
<td>March 22, 29</td>
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<tr>
<td>13, Transf., Symm, Tiling</td>
<td>2</td>
<td>April 5, 26</td>
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<tr>
<td>Exam 3</td>
<td>Tuesday, April 12</td>
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<tr>
<td>Presentations</td>
<td>1.5</td>
<td>April 12, 19</td>
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Last Day of Class: Thursday, April 28

Do presentations in 6 groups of five each with two per class. Note that the Chapter 13 sections are not on contiguous weeks. You can change that if you wish.

* Extra week to allow flexibility between Chapters 8, 9, 10. Students in the past have had significant difficulty with Chapter 10, Probability, and have not seen this material before at any depth. We will need to talk about how to present that material.