FOUNDATIONS OF HIGHER MATHEMATICS

MATH 3460-001, Call No. 03655, 3 Credits
Fall 2006, TR 9:40 – 11:05, KOM 202

This course will delve into the language of mathematics, set theory and proof, relations and functions, number systems, and other mathematical structures. A major purpose of the course is to build a bridge from lower-level division study to upper division study by actively engaging the student in problem-solving, mathematical reasoning, and both informal and technical writing.

INSTRUCTOR: Dr. Dennis Walsh

OFFICE: KOM 273      OFFICE HRS: MWF 9:15 – 11:15, 3:30 – 4:30
PHONE: 898-2224 (office)      TR 8:00 – 9:30
        898-2669 (dept. office) (other hours by appointment)
DEPT. FAX: 898-5422      E-MAIL: dwalsh@mtsu.edu

PREREQUISITES: MATH 221 (Calculus II)


SCHEDULE (subject to revision):

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Aug 29 – Sep 12</td>
<td>Chapter 1: Introduction to Logic; Chapter 2: Methods of Proof</td>
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<td>Sep 14</td>
<td>• Test</td>
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<tr>
<td>Sep 19 – Oct 10</td>
<td>Chapter 3: Set Theory; Chapter 4: Cartesian Products and Functions</td>
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<td>Oct 12</td>
<td>• Test</td>
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<td>Oct 19 – Nov 9</td>
<td>Chapter 5: Relations; Chapter 6: Cardinality</td>
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<td>Nov 14</td>
<td>• Test</td>
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<td>Nov 16 – 30</td>
<td>Chapter 7: Number Theory</td>
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<td>Dec 5</td>
<td>• Test</td>
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<td>Dec 14</td>
<td>Final exam (10:00 – 12:00)</td>
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ATTENDANCE:

Attend every class. Prompt notification of an absence is required. If a student misses a test for a legitimate reason that is promptly reported, the instructor will either give a make-up test or reweigh the final exam. A grade of W or I will be given only in accordance with the University policy. The highest score possible on an assignment/test that is turned in late is the lowest score of the students who were not late. If a student misses a class, it is the student's responsibility to obtain class notes from a classmate.
EVALUATION:

The semester grade will be based on attendance (15%), tests (60%), and the final exam (25%). Letter grades will be assigned according to the scale:

A for [90,100],  B for [80, 89],  C for [70, 79],  D for [60, 69],  F for [0, 59].

DISABILITY:

If you have a disability that may require assistance or accommodation, or if you have questions related to any accommodations for testing, note takers, readers, etc., please speak with me as soon as possible. Students may also contact the Office of Disabled Students Services (898-2783) with questions about such services.

SCHOLARSHIP:

To retain Tennessee Education Lottery Scholarship eligibility, you must earn a cumulative TELS GPA of 2.75 after 24 attempted hours and a cumulative TELS GPA of 3.0 thereafter. A grade of C, D, F, or I in this class may negatively impact TELS eligibility. Dropping a class after 14 days may also impact eligibility; if you withdraw from this class and it results in an enrollment status of less than full time, you may lose eligibility for your lottery scholarship.

IMPORTANT DATES:

Sept 4 ............ Labor Day holiday
Sept 10 .......... Deadline: drop or withdraw without a grade
Oct 15 .......... Deadline: drop or withdraw with “W”
Oct 14 – 17 ..... Fall break
Nov 23 – 25 .... Thanksgiving holidays
Dec 5 .......... Last class
Dec 7 .......... Study day
Dec 14 .......... Final exam (10:00 – 12:00)