**Name of Course:** Survey of Mathematical Reasoning  
**Catalog Number:** MA21  
**Section:** 6195  
**Textbook:** Mathematical Ideas, Expanded 11th Edition by Miller, Heeren, Hornsby  
**Note:** Bring your book to each class  
**Course Instructor:** Prof. John Urquhart  
**Telephone:** Math Office – 548-2628  
**Office Hours:** by appointment  
**Note:** Skills Center in Orient 234 for additional help 548-2628  
**Prerequisite:** MA06 or MA07 or equivalent  
**Course Objectives:** MA21 is designed to provide college students with the opportunity to experience the different types of mathematical thinking; and to enable them to ultimately appreciate mathematics as an art, a science and a language, in addition to a method of understanding and solving problems. This course, while designed to satisfy the mathematical needs of the liberal arts student, as a consequence of its emphasis on abstract reasoning, can be a useful course for all college students.  
**Homework:** Practice is very important to the mastery of Mathematics. I will be giving chapter plans which will include notice of tests and homework assignments. I will collect homework on due dates assigned. There will be a homework grades incorporated in your overall class grade (see Grading). I will go over any questions you may have for the first fifteen (15) minutes of each class.  
**Attendance:** Each student is expected to attend every class for which he or she is registered. The student is responsible for all that transpires in class whether he or she is in attendance of not. The College defines excessive absence as more than the equivalent of one week of class meetings during the semester. Three absences requires a meeting with the course professor to discuss continuing the course or withdrawal. I will be taking attendance at each class and there will be an overall attendance grade (see Grading).
Grading:

There will be four (4) tests and a cumulative final. There will be no make-up tests. Arrangements must be made in advance for unusual circumstances to take the exam at a time PRIOR to the next class meeting. If you fail to do so, a zero (0) will be recorded for your test grade, there are NO exceptions. The following is the test timetable:

TEST 1 after completing Chapters 1 and 2
TEST 2 after completing Chapter 3
TEST 3 after completing Chapter 4
TEST 4 after completing Chapter 6
Final (last scheduled day of class)

The homework grade which will be included are as follows:

Completeness grade – 4 sets of homework will be collected - each set of homework will be reviewed for completeness (25 points each – to add up to a total of 100). Late homework will NOT be accepted and you will receive zero (0) points for that homework set. I will not be correcting all the homework (since you will be able to check your answers in the back of the book) but if you have a question, please circle it and I will review it.

Attendance grade
Students will receive E for excellent attendance (no absences); A for average attendance (1-2 absences); or P for poor attendance (3 or more absences). This grade will be used at the time of assessing your overall class grade, except in the case of a P, a meeting with the professor will occur.

The course grade is determined as follows:

- Tests 50%
- Homework completeness 20%
- Final 30%

Grading is as follows:

- A = 90-100%
- B+ = 85-89%
- B = 80-84%
- C+ = 75-79%
- C = 70-74%
- D+ = 65-69%
- D = 60-64%
- F = 59% or below
- W indicates the student has officially withdrawn through the registrar by the deadline date of April 7, 2008.
Calculator Policy: The use of a calculator during tests and class work is permitted. Sharing of calculators on exams is NOT permitted. You will NOT be permitted to use a cell phone or Palm Pilot for calculations. I will check on the calculators before you take an exam.

Cell Phones: Please turn off your cell phones during the course. I will collect cell phones that ring during class and return them after class is over.

Respectful Behavior: I will be doing my best to respect you as a student in my class and in return, I expect the respect as your teacher. Disrespectful or disruptive behavior (such as conversations during class, answering cell phones, being late on a regular basis and leaving early) will lead to being asked to leave the class. You will be required to set up a meeting with the professor to prior to returning to the class.

Course Outline:

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Sections in order of being covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: The Art of Problem Solving</td>
<td>1.1, 1.2, 1.3, 1.4</td>
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<tr>
<td>2: The Basic Concepts of Set Theory</td>
<td>2.1, 2.2, 2.3, 2.4</td>
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<td>3: Introduction to Logic</td>
<td>3.1, 3.2, 3.3, 3.4, 3.5, 3.6</td>
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<td>4: Numeration and Mathematical Systems</td>
<td>4.1, 4.2, 4.3, 4.4, 4.5, 4.6</td>
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<tr>
<td>6: Real Numbers and Their Representation</td>
<td>6.1, 6.2, 6.3, 6.4, 6.5</td>
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<tr>
<td>14: Personal Financial Management OR 15: Graph Theory</td>
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