Course Syllabus  
School of Mathematical and Natural Sciences  
MATH 1003: Survey of Mathematics-01  
(ACTS: Math 1003-College Math)  
Spring 2015

Instructor: Dr. H. Sayyar  
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Office: Science Center A-19  
Phone: 460-1366

Office Hours: MWF 9:10 - 10:00 & 11:10-12:00 am & 2:00-3:00 pm  
TH: 2:00 - 3:00 pm, also by appointment

Course Prerequisites: At least one of the following:

1. An ACT Mathematics score of 19 or higher.
2. A grade of C or better in Math 0183: Intermediate Algebra
3. A quantitative score of 460 or higher on the SAT
4. An ASSET score of 39 or higher
5. A COMPASS score of 41 or higher
6. Passing the UAM math placement test for College Algebra/Survey

Required Text & Materials:

1. Mathematics All Around (customized edition) by Thomas L. Pirnot which is packaged with MyMathLab
2. A calculator having GRAPHING and STATISTICAL capability (recommended: Texas Instruments TI-83, TI-83 Plus, or TI-84).
3. Students must provide scantrons for all tests.

Course Objectives:
Problem solving is a major goal of the student's mathematical experience. This course seeks to enhance the student's problem solving ability by examining various problem solving strategies. This course strives to increase the student's awareness of mathematics as an art and as a means of logical communication. An objective of this course is that the student will see and be able to use mathematics as a powerful tool in solving problems that commonly arise in today's world. Additionally students should be able to analyze situations and make informed decisions about events that are quantitative in nature.

Course Content and Outline: The following dates are tentative and will be revised as necessary.

1. SETS (Jan. 7 – Jan. 27, test 1)
   The Language of Sets  
   Comparing Sets  
   Set Operations  
   Survey Problems

2. COUNTING (Jan. 28 – Feb. 19, test 2)
   Introduction to Counting Methods  
   The Fundamental Counting Principle  
   Permutations  
   Combinations  
   Pascal's Triangle  
   Counting
3. **PROBABILITY** *(Feb. 20 – Mar. 12, test 3)*
   - The Basics of Probability Theory
   - Complements of Events
   - Unions of Events
   - Conditional Probability
   - Intersections of Events
   - Expected Value
   - Binomial Experiments

4. **DESCRIPTIVE STATISTICS** *(Mar. 16 – April 14, test 4)*
   - Organizing and Visualizing Data
   - Measures of Central Tendency
   - Measures of Dispersion
   - The Normal Distribution

5. **CONSUMER MATHEMATICS** *(April 13 – April 28, test 5)*
   - Percent Change and Taxes
   - Interest
   - Consumer Loans
   - Annuities

**Grading:** Grades are assigned on the following basis:

- Test #1 (Sets): ................................................................. 100 points
- Test #2 (Counting): ......................................................... 100 points
- Test #3 (Probability): ...................................................... 100 points
- Test #4 (Statistics): ......................................................... 100 points
- Test #5 (Consumer Math): ............................................... 100 points
- Homework: ................................................................. 100 points
- **Final Exam (Tuesday, May 5, 8-10 AM)** ......................... 100 points

Your letter grade is based on the percentage of the total points you earned out of a maximum of 700 points:

- A: 90% - 100%
- B: 80% - 89%
- C: 70% - 79%
- D: 60% - 69%
- F: 0% - 59%

**Homework:** Homework for this class will be done online using MyMathLab, an online program available for users of the textbook adopted for this course. Students will need to purchase this program which comes bundled with the customized text available at the bookstore or which can be purchased online. After purchasing the access code, students should do the following:

- *Go to [www.mymathlab.com](http://www.mymathlab.com) and click on the REGISTER button for students.*
- *Follow the on-screen instructions to enter the following information:*
  - Instructor's course code: sayyar62488
  - Student access code: (available when MyMathLab has been purchased)
  - Provide contact information
  - Create login name and password

**Expectations of the Student:** Survey of Mathematics will probably be different than any other math course that you have taken. It is assumed that you have the prerequisite background in arithmetic and algebra to be able to use the concepts and procedures of these subjects as tools in developing the various parts of mathematics that will be explored in this course. You must be willing to spend a sufficient amount of time (approximately 2 hours outside of class for every 1 hour inside class) to do the daily assignments and any projects that might be developed for the class. Under no circumstances should you allow yourself to fall behind in this course.
Special Policies:

1. If no tests are missed, your score on the final exam will replace your lowest test if the score on the final is higher. If one test is missed, then the grade on the final exam will be substituted for the test grade. If two or more tests are missed, a grade of zero will be given for the second and any subsequently missed tests.

2. There are no makeup tests. Homework will not be accepted late.

3. You are expected to attend ALL classes. Attendance is considered essential to the educational experience. Research on student attendance has shown the following:

   (a) Class attendance correlates significantly with grades.

   (b) The most productive time in any class is the time actually spent in the classroom.

The following is taken from the text, Geometric Structures, by Douglas Aichele and John Wolfe:

PERSONAL RESPONSIBILITY FOR LEARNING: Ultimately, each of us is responsible for our own learning. We as individuals are the only ones who can really know if we understand something. We need to find a regular weekly routine that enables us to learn. We need to regularly access our level of success and make adjustments as needed. Caring teachers, research-based curricula, and friends can certainly help, but in the end we each need to find a way that works for us. Personal honesty and courage are a big part of individual responsibility for learning. “Do I spend enough time on my homework?” “Do I really understand this assignment?” “Does my social life interfere with my schoolwork?” “Do my time and effort line up with my priorities?” Honest awareness of these questions is essential for effective learning. When choices need to be made, personal courage to face the truth is vital. (Page 641)

Cell phone policy:

The use of cell phones and/or other electrical devices for communication and/or entertainment are not allowed in class. Cell phones are not to be even visible during the class period. Turn your cell phone OFF and put it in your backpack, pocket, purse, or under your desk. Each violation of this policy will cause the violator a loss of 10 points from the total 700 points available for the course.

Students with disabilities:

It is the policy of the University of Arkansas at Monticello to accommodate individuals with disabilities pursuant to federal law and the University’s commitment to equal educational opportunities. It is the responsibility of the student to inform the instructor of any necessary accommodations at the beginning of the course. Any student requiring accommodations should contact the Office of Special Student Services located in Harris Hall Room 120; phone 870 460-1026; TDD 870 460-1626; Fax 870 460-1926; email: whitingm@uamont.edu.

For assistance on a College of Technology campus contact:
McGehee: Office of Special Student Services representative on campus; phone 870 222-5360; fax 870 222-1105.
Crossett: Office of Special Student Services representative on campus; phone 870 364-6414; fax 870 364-5707.
**Student Conduct Statement:**

Students at the University of Arkansas at Monticello are expected to conduct themselves appropriately, keeping in mind that they are subject to the laws of the community and standards of society. The student must not conduct him/herself in a manner that disrupts the academic community or breaches the freedom of other students to progress academically.

**Academic dishonesty:**

1. **Cheating:** Students shall not give, receive, offer, or solicit information on examinations, quizzes, etc. This includes but is not limited to the following classes of dishonesty:
   1. Copying from another student’s paper;
   2. Use during the examination of prepared materials, notes, or texts other than those specifically permitted by the instructor;
   3. Collaboration with another student during the examination;
   4. Buying, selling, stealing, soliciting, or transmitting an examination or any material purported to be the unreleased contents of coming examinations or the use of any such material;
   5. Substituting for another person during an examination or allowing such substitutions for oneself.

2. **Collusion:** Collusion is defined as obtaining from another party, without specific approval in advance by the instructor, assistance in the production of work offered for credit to the extent that the work reflects the ideas of the party consulted rather than those of the person whose name is on the work submitted.

3. **Duplicity:** Duplicity is defined as offering for credit identical or substantially unchanged work in two or more courses, without specific advanced approval of the instructors involved.

4. **Plagiarism:** Plagiarism is defined as adopting and reproducing as one’s own, to appropriate to one’s use, and to incorporate in one’s own work without acknowledgement the ideas or passages from the writings or works of others.

For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will be a grade of 0 for any and all such activities.

**Important Dates:**

- January 7 (Wed)  First day of classes
- January 9 (Fri)   Last day to register or add classes
- January 19 (Mon) Martin Luther King Day Holiday,
- March 18 (Wed)   Last day to drop classes. Grade(s) will be W.
- March 23 – 27    Spring Break
- April 6 (Mon)    Summer/Fall 2015 Preregistration starts
- April 17 (Fri)   Summer/Fall 2015 Preregistration ends
- April 28 (Tues)  Last day of classes
- April 29 - May 5 Final exam period
- May 5 (Tues)     Trigonometry Final Exam
- May 8 (Fri)      Commencement

**Tuesday, May 5, 8:00 – 10:00AM - Final Exam**
<table>
<thead>
<tr>
<th>Date</th>
<th>Notebook</th>
<th>MyMathLab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug. 20, 22</td>
<td>Sets (Language of Sets)</td>
<td>08/22-08/27</td>
</tr>
<tr>
<td>Aug. 25, 27</td>
<td>Sets (Comparing Sets)</td>
<td>08/27-08/31</td>
</tr>
<tr>
<td>Aug. 29, Sep.3</td>
<td>Sets (Set Operations)</td>
<td>08/31-09/05</td>
</tr>
<tr>
<td>Sept. 5, 8</td>
<td>Sets (Survey Questions)</td>
<td>09/05-09/07</td>
</tr>
<tr>
<td>Sept. 10</td>
<td>Test #1</td>
<td></td>
</tr>
<tr>
<td>Sept. 12, 15</td>
<td>Counting (Counting Methods)</td>
<td>09/14-09/19</td>
</tr>
<tr>
<td>Sept. 17, 19</td>
<td>Counting (The Fundamental Counting Principle)</td>
<td>09/19-09/21</td>
</tr>
<tr>
<td>Sept. 22, 24</td>
<td>Counting (Permutations and Combinations)</td>
<td>09/21-09/24</td>
</tr>
<tr>
<td>Sept. 26, 29</td>
<td>Counting (More examples)</td>
<td>09/24-09/28</td>
</tr>
<tr>
<td>Oct. 1</td>
<td>Test #2</td>
<td></td>
</tr>
<tr>
<td>Oct. 3, 6</td>
<td>Probability (Basic Probability)</td>
<td>10/12-10/17</td>
</tr>
<tr>
<td>Oct. 8, 10</td>
<td>Probability (Complements and Unions of Events)</td>
<td>10/17-10/19</td>
</tr>
<tr>
<td>Oct. 13, 15</td>
<td>Probability (Conditional Probability, Intersections)</td>
<td>10/19-10/22</td>
</tr>
<tr>
<td>Oct. 17, 20</td>
<td>Probability (Expected Values)</td>
<td>10/22-10/26</td>
</tr>
<tr>
<td>Oct. 22, 24</td>
<td>Probability (Binomial Experiments)</td>
<td>10/31-11/05</td>
</tr>
<tr>
<td>Oct. 27</td>
<td>Test #3</td>
<td></td>
</tr>
<tr>
<td>Oct. 29, 31</td>
<td>Statistics (Organizing and Visualizing Data)</td>
<td>11/09-11/14</td>
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<tr>
<td>Nov. 3, 5</td>
<td>Statistics (Measures of Central Tendency)</td>
<td>11/14-11/16</td>
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<tr>
<td>Nov. 7, 10</td>
<td>Statistics (Measures of Dispersion)</td>
<td>11/16-11/21</td>
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<tr>
<td>Nov. 12, 14</td>
<td>Statistics (The Normal Distribution)</td>
<td>11/21-11/28</td>
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<tr>
<td>Nov. 17</td>
<td>Statistics (More Examples)</td>
<td>11/28-11/30</td>
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<tr>
<td>Nov. 19</td>
<td>Test #4</td>
<td></td>
</tr>
<tr>
<td>Nov. 21, 24</td>
<td>Consumer Math (Percent Change and Taxes)</td>
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<tr>
<td>Dec. 1, 3</td>
<td>Consumer Math (Interest and Loans)</td>
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