MTH 110.2,3 – Spring 2016

Mathematics in Society

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Class meeting time and place:

Section 002 – MWF 10:00-10:50 – Math 202
Section 003 – MWF 11:00-11:50 – Math 202

Office Hours:
These hours have been set aside specifically to help students. Additional times are available by appointment
MWF 8:30 - 10:00
TR 8:30– 9:30, others by appointment

Course description:
Math 110 provides an introduction to mathematical thinking with an emphasis on analysis of information for decision-making purposes.

Student Learning Outcomes:
At the end of MTH 110, a student who has studied and learned the material should be able to:

- Demonstrate understanding of elementary logic in order to make persuasive arguments, understand conflicting reports, identify faulty reasoning, detect bias, assess risk, suggest alternatives, and draw solid conclusions.
- Use sets as a tool for organizing information, recognize that relationships between and among sets provide the foundation for many valid arguments.
- Use counting techniques, estimation, proportional reasoning, percents, and unit conversions to more ably interpret numerical quantities that occur in everyday life.
- Demonstrate understanding of basic probability and how it is involved in virtually every decision we make – either explicitly or implicitly.
- Use statistics to critically evaluate and interpret statistical studies and corresponding reports.

Text and Materials:
The textbook is A Survey of Mathematics with Applications 9th Edition, by Angel, Abbott, and Runde. Custom book Chapters 2, 3, 4, 5, and 6 of the textbook will be covered in this course. ISBN# 1256564184 (custom book/MyMathLab), or 032119991X (ebook w/MyMathLab) access code comes with it. Publisher: Pearson

You will need a calculator for this class. A scientific calculator with parenthesis and probably functions will be sufficient. The calculator function of a cell phone will not be permitted during tests or quizzes.

Course Requirements:
There will be four exams and a final exam. The final exam is comprehensive. Your final exam grade can be used to replace a low or missing exam grade. Therefore, there will be no make up exams. If you miss an exam, your final exam grade will be substituted in place of the missing exam grade.
Course Calendar:
You will be provided with a tentative calendar for the course, along with a listing of practice problems for each section that we will cover. These problems will not be turned in, however, they may be quizzed over. These problems are assigned for your benefit. You are expected to attempt each practice problem and request help on the problems you can not complete. Class time will be set aside for answering questions. The problems assigned will be good practice for the tests and quizzes.

Grading Policy:
Your final grade will be determined as follows:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
<th>Grade Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>20%</td>
<td>Daily mymathlab</td>
<td>90% - 100%</td>
<td>A</td>
</tr>
<tr>
<td>60%</td>
<td>Tests (3 @ 20% each)</td>
<td>80% - 90%</td>
<td>B</td>
</tr>
<tr>
<td>20%</td>
<td>Comprehensive Final Exam</td>
<td>70% - 80%</td>
<td>C</td>
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<tr>
<td>100%</td>
<td>Final Course Grade</td>
<td>60% - 70%</td>
<td>D</td>
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<td>0% - 60%</td>
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Final Exam – Section 002 (10:00 am class): Mon, 5/9/16 10:30 – 12:30 Room 202
Section 003 (11:00 am class): Wed, 5/11/16 10:30 – 12:30 Room 202

20% of your grade will be determined by your daily average. This will include in-class activities, worksheets, quizzes, homework assignments, My Math Lab, etc. In-class activities, worksheets, and quizzes cannot be made up. However, I will drop one or two of the daily grades at the end of the semester.

Attendance Policy:
Attendance is expected and recorded for all students. Attendance will not be formally factored into your course grade, however, missing in-class activities, quizzes, etc, could lower your daily average. Also, missing classes will significantly reduce the instruction you receive, and will therefore naturally decrease your semester grade.

Supplemental Instruction (SI): will be given later

Online homework will be required using My Math Lab at www.mymathlab.com. When you create an account, use course ID: for Section 002: hosseinpour10432
course ID: for Section 003: hosseinpour54639

Acceptable Student Behavior:
Classroom behavior should not interfere with the instructor's ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy D-34.1). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.
Students with Disabilities:
To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

Academic Integrity (A-9.I):
Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

Definition of Academic Dishonesty
Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.

Please read the complete policy at http://www.sfasu.edu/policies/academic_integrity.asp

General Education Core Curriculum
This course has been selected to be part of Stephen F. Austin State University’s core curriculum. The Texas Higher Education Coordinating Board has identified six objectives for all core courses: Critical Thinking Skills, Communication Skills, Empirical and Quantitative Skills, Teamwork, Personal Responsibility, and Social Responsibility. SFA is committed to the improvement of its general education core curriculum by regular assessment of student performance on these six objectives.

Assessment of these objectives at SFA will be based on student work from all core curriculum courses. This student work will be collected in D2L through LiveText, the assessment management system selected by SFA to collect student work for core assessment. LiveText accounts will be provided to all students enrolled in core courses through the university technology fee. You will be required to register your LiveText account, and you will be notified how to register your account through your SFA e-mail account. If you forward your SFA e-mail to another account and do not receive an e-mail concerning LiveText registration, please be sure to check your junk mail folder and your spam filter for these e-mails. If you have questions about LiveText call Ext. 1267 or e-mail SFALiveText@sfasu.edu.

The chart below indicates the core objectives addressed by this course, the assignment(s) that will be used to assess the objectives in this course and uploaded to LiveText this semester, and the date the assignment(s) should be uploaded to LiveText. Not every assignment will be collected for assessment every semester. Your instructor will notify you which assignment(s) must be submitted for assessment in LiveText this semester.
## Tentative Course Schedule (MTH 110, 2, 3 MWF sections)

| Course Introduction | 2.2 Subsets  
| 2.1 Sets | 2.3 Venn Diagrams  
| 2.4 Set Equality | 3.1 Statements and Logical Connectives  
| 2.5 Applications of Sets | 3.2 Truth Tables I  
| 3.3 Truth Tables II | 3.5 Symbolic Arguments  
| 3.4 Equivalent Statements | 3.6 Euler Diagrams/Syllogistic Arguments  
| 3.6 (cont.) |  
| Review/Extra Instruction | Exam 1 (Ch 2 and Ch 3)  
| 11.1 Percent | 11.3 Compound Interest  
| 11.2 Personal Loans and Simple Interest | 11.4 Installment Buying  
| 11.4 (cont.) | 11.5 Buying a House with a Mortgage  
| 11.6 Annuities and Sinking Funds | Review/Extra Instruction  
| **Exam 2 (Ch 11)** | 12.1 The Nature of Probability  
| | 12.2 Theoretical Probability  
| | 12.5 Tree Diagrams  
| 12.7 (cont.) | 12.6 OR and AND Probability  
| 12.8 The Counting Principle |  
| 12.9 Combinations |  
| 12.10 Probability Problems using Combinations | Exam 3 (Ch 12 Portion)  
| Review/Extra Instruction |  
| 13.2 Misuses of Statistics | 13.4 Central Tendency Statistics  
| 13.3 Frequency Distributions and Graphs | 13.5 Dispersion Statistics  
| | 13.6 (cont.)  
| Review/Extra Instruction | Exam 3 (Ch 13 Portion)  
| 1.3 Problem Solving | Review/Extra Instruction  
| **Finals Week** |  
