Syllabus: MTH 110
Mathematics in Society
Spring 2016, Sections: 8, 11

Name: Mrs. Angela Dixon
Department: Mathematics and Statistics
Email: westaL1@sfasu.edu
Office Hours: M 1-2:15; T/Th 9-9:30, 10:45-11:45, 1:45-2; W 1-1:45

Class meeting time and place:
Section 8, Math Bldg 202, TTh 9:30am
Section 11, Math Bldg 202, TTh 12:30pm

Text and Materials:
SFA Custom Edition w/ MyMathLab or Online only textbook w/ MyMathLab
ISBN: 0321837533 (Hardback w/MyMathLab)
1256564184 (Custom book w/MyMathLab)
032119991X (ebook w/MyMathLab)

Calculator: A scientific calculator is required. (Recommendations: TI-30XS Multiview, TI-30X IIS, or TI-34 Multi
view)

Course Description: Provide an introduction to mathematical thinking emphasizing analysis of information for
decision-making.

General Education Core Curriculum Objective/Outcomes:
1. To apply arithmetic, algebraic, geometric, higher-order thinking, and statistical methods to modeling
and solving real-world situations.
2. To represent and evaluate basic mathematical information verbally, numerically, graphically, and
symbolically.
3. To expand mathematical reasoning skills and formal logic to develop convincing mathematical
arguments.
4. To use appropriate technology to enhance mathematical thinking and understanding and to solve
mathematical problems and judge the reasonableness of the results.
5. To interpret mathematical models such as formulas, graphs, tables and schematics, and draw
inferences from them.
6. To recognize the limitations of mathematical and statistical models.
7. To develop the view that mathematics is an evolving discipline, interrelated with human culture, and
understand its connections to other disciplines.

Student Learning Outcomes:
At the end of MTH 110, a student who has studied and learned the material should be able to:
1. 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.
2. Use sets as a tool for organizing information, recognize that relationships between and among sets
provide the foundation for many valid arguments.
3. Use counting techniques, estimation, proportional reasoning, percents, and unit conversions to more
ably interpret numerical quantities that occur in everyday life.
4. Demonstrate understanding of basic probability and how it is involved in virtually every decision we
make – either explicitly or implicitly.
5. Use statistics to critically evaluate and interpret statistical studies and corresponding reports.
6. Use functions to model various relationships with enough precision to gain insight into how things
work and to make reasonable predictions about the future.
Course Requirements:
Your grade will be determined by four regular exams, a comprehensive final exam, and daily work in the form of quizzes/homework (online and in class) and group work. There will be NO make-up tests or quizzes.

- Online homework will be required using My Math Lab at www.mymathlab.com.
- Online homework/quizzes will be DUE EVERY WEDNESDAY!!!

Tentative Course Calendar:

<table>
<thead>
<tr>
<th>Week</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Jan 18-22)</td>
<td>Syllabus/ Section 2.1 Set Concepts</td>
<td>Section 2.2 Subsets</td>
<td>Section 2.3 Venn Diagrams and Set Operations</td>
<td>Section 2.4 Venn Diagrams w/ three sets</td>
</tr>
<tr>
<td>2 (Jan 25-29)</td>
<td>Section 2.5 Applications of Sets/ Chapter 2 Review/Catch Up</td>
<td>Exam 1</td>
<td>Section 3.1 Statements and Logical Connectives</td>
<td>Section 3.3 Truth Tables for Conditional and Biconditional</td>
</tr>
<tr>
<td>3 (Feb 1-5)</td>
<td>Section 3.2 Truth Tables for Negation, Conjunction, Disjunction</td>
<td>Exam 2</td>
<td>Section 3.4 Equivalent Statements</td>
<td>Section 3.5 Symbolic Arguments/ Chapter 3 Review/Catch Up</td>
</tr>
<tr>
<td>4 (Feb 8-12)</td>
<td>Exam 3</td>
<td>Section 3.6 The Normal Curve</td>
<td>Section 11.1-11.2 Percent/Simple Interest Loans /Section 11.3 Compound Interest</td>
<td>Section 11.4 Installment Buying</td>
</tr>
<tr>
<td>5 (Feb 15-19)</td>
<td>Section 11.5 Buying a House with a Mortgage</td>
<td>Week 8 (Mar 7-11)</td>
<td>Section 11.6 Ordinary Annuities, Sinking Funds/ Chapter 11 Review /Catch Up</td>
<td>Exam 4</td>
</tr>
<tr>
<td>6 (Mar 21-25)</td>
<td>Spring Break!!! ☺</td>
<td>Exam 5</td>
<td>Section 12.1-12.2 Theoretical Probability /Section 12.3 Odds</td>
<td>Section 12.5 Tree Diagrams Section /Section 12.6 OR and AND problems</td>
</tr>
<tr>
<td>7 (Mar 28-Apr 1)</td>
<td>Section 12.7 Conditional Probability/ Section 12.8 The Counting Principle and Permutations</td>
<td>Exam 6</td>
<td>Section 12.9-12.10 Combinations and Solving Probability Problems Using Combinations</td>
<td>Section 12.5 Tree Diagrams Section /Section 12.6 OR and AND problems</td>
</tr>
<tr>
<td>9 (Apr 11-15)</td>
<td>Section 13.6 The Normal Curve</td>
<td>Exam 8</td>
<td>Section 13.6 The Normal Curve</td>
<td>Catch Up/Chapter 13 Review</td>
</tr>
<tr>
<td>10 (Apr 18-22)</td>
<td>Final Exam Review/Catch Up</td>
<td>Final Exam Review</td>
<td>Final Exam Review</td>
<td>Final Exam Review</td>
</tr>
<tr>
<td>11 (May 2-6)</td>
<td>Final Exams</td>
<td>Final Exams</td>
<td>Final Exams</td>
<td>Final Exams</td>
</tr>
<tr>
<td>12 (May 9-13)</td>
<td>Final Exams</td>
<td>Final Exams</td>
<td>Final Exams</td>
<td>Final Exams</td>
</tr>
</tbody>
</table>
Grading Policy:

<table>
<thead>
<tr>
<th>Final Grade Components</th>
<th>Grading Scale</th>
<th>Tentative Exam Dates:</th>
</tr>
</thead>
<tbody>
<tr>
<td>10% Homework</td>
<td>A 90% - 100%</td>
<td>Exam 1: Thursday, February 4</td>
</tr>
<tr>
<td>10% Quizzes</td>
<td>B 80% - 90%</td>
<td>Exam 2: Tuesday, February 23</td>
</tr>
<tr>
<td>4 Exams @ 15% each</td>
<td>C 70% - 80%</td>
<td>Exam 3: Thursday, March 10</td>
</tr>
<tr>
<td>20% Comprehensive Final Exam</td>
<td>D 60% - 70%</td>
<td>Exam 4: Thursday, April 14</td>
</tr>
<tr>
<td></td>
<td>F 0% - 60%</td>
<td>Final Exam:</td>
</tr>
</tbody>
</table>

Testing, Grading, and Make-up Policies

- If you miss a test and have a valid excuse, I will replace your missed test grade by your final exam grade. However, your final may only replace ONE other score.
- You must bring and display either your SFASU Student ID or a valid driver’s license to be permitted to take each test and the final exam. I must be able to recognize you from the photo on the ID.
- Since you have a full semester to arrange any travel plans, they are not an excuse for missing the final.
- Students are expected to attend every class meeting, arriving on time. **If you score a 70% or better on the final AND have three or fewer unexcused absences, then that score may replace your lowest test grade.**
- You may get help on work that is assigned to be done outside of class, unless otherwise instructed, but I expect any work that you turn in to reflect your understanding of the material. On in-class graded work, I expect you to only use your brains, pencil, paper, and, sometimes, a calculator.
- **NO LATE WORK** is accepted. There are no exemptions from this policy. Assignments are given far enough in advance so that you can either e-mail them, fax them, or have another student turn them in for you.
- No extra time will be given on exams or homework assignments. All assignments are designed to be finished in the time allotted.

Attendance Policy:

Students are expected to attend every class meeting, arriving on time and staying for the duration of the class. Leaving class early is considered (unless otherwise approved) an unexcused absence. Over 3 unexcused absences may result in a grade reduction.

Disruptive Behavior

If a student’s behavior is interfering with classroom procedure, he/she will be asked to leave the class and will be counted absent for that session. If the disruptive behavior continues, the student will be dropped from the class. Disruptive behavior may include, but is not limited to cell phone talking and text messaging, sleeping in class, threatening the instructor or other students, fighting, using profanity, talking with or otherwise disturbing students, talking so loudly as to interfere with the instructor and/or the class, etc.

Additional Help:

Free tutoring is available from the AARC. They offer peer tutoring and the Math Walk-in Table. The hours for the Walk-in Table are 1pm to 8pm Monday through Thursday as well as 4pm to 8pm on Sundays. Sign-ups for weekly tutoring begin Tuesday, January 19 at 7:00AM. It is a first-come, first-serve basis so you may want to register early. If you need help signing up, the AARC staff (first floor of library, right-hand side) will be happy to assist. You can find more information on the AARC website, www.sfasu.edu/aarc.

University Policies

- **Academic Integrity (A-9.1)** 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

- **Withheld Grades Semester Grades Policy (A-54)** Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average. The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C.

- **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/.

**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.
MyMathLab Sign In Instructions
What You Need to Enroll in your Instructor’s Online Course

• A Course ID: ____________________
  Section 8, 9:30 class: (dixon67604),
  Section 11, 12:30 class: (dixon01143),

• A valid email address that you check regularly
This address will be used to confirm your registration and for other communication about the course. Your instructor will also use this email address to communicate with you.

• A student access code (Or, you can pay with a credit card or a PayPal account.)
This pre-paid code is printed inside the Student Access Code Card. The code card may be packaged with your new textbook or it may be available for purchase separately from your school’s bookstore.

To Register and Sign in to Your Instructor’s Course the First Time

• Go to www.mymathlab.com
• Click Student under Register.
• Enter your Course ID (above) and click Continue.
• Verify the course information.
• If you have used MyMathLab in other courses you can enter your username and password, and click Sign In.
• If you don’t have an account, click Create
• Complete your account set up by entering your name, email address, a username and password, and any other required information. **WRITE THIS DOWN AND SAVE IT**
• Click Create Account. You now have a Pearson Account.
• Paying for your course access.
  • If you have already purchased an access code, click Access Code, enter the code and click Finish.
  • If using a credit card or PayPal, click the button for the access you want to purchase, provide payment account information and verify your order.
  • You also can use the “Temporary Trial Access” which will give you temporary access to the course until you are able to purchase the access code (usually lasts 14 days). Remember to write down the email address/username/password you use for the trial access or you may lose all work done during your trial.
• Print the Confirmation & Summary

You now have access to your instructor’s online course.
Click Go To Your Course, and then in the left panel, click the course name to start your work.