COURSE SYLLABUS

Contemporary Mathematics

MATH 1332

Fall 2015

3 – 0 – 3
Lecture – Lab – Credit

TSI-Met in Mathematics
Prerequisites

This syllabus has been reviewed and is current on the date indicated below.

Prepared By
Terra Alvarado
Course Instructor

Reviewed By
Troy Williamson
Director of General Education

Date
July 21, 2015

Date
August 11, 2015
II. Class Time, Location

This is a completely online class. Note, however, that a proctored final examination is required. Students may take the final examination at no cost in one of the TSTC testing centers. If students do not live locally and have to test at another institution’s testing center, students will be responsible for paying any testing fees required.

You can access the college’s Moodle learning management system through the college portal or website, or directly by going to https://mycourses.tstc.edu. If you are having difficulty with this site, technical support is available by phone at 800-592-8784, by email at tstchelpdesk@tstc.edu, or via Yahoo Instant Messenger at tstchelpdesk.

You can access MyMathLab directly by going to www.mymathlab.com. If you are having any difficulty with this site, please contact Pearson’s technical support online at 247pearsoned.custhelp.com.

III. Core Curriculum Objectives

The Texas Higher Education Coordinating Board has established six Core Curriculum Objectives which apply to general academic courses. These objectives are:

1) Critical Thinking Skills (including creative thinking, innovation, inquiry, and the analysis, evaluation, and synthesis of information);

2) Communication Skills (including the effective development, interpretation, and expression of ideas through written, oral, and visual communication);

3) Empirical and Quantitative Skills (including the manipulation and analysis of numerical data or observable facts, resulting in informed conclusions);

4) Teamwork (including the ability to consider different points of view and to work effectively with others to support a shared purpose or goal);
5) Social Responsibility (including intercultural competency, a knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities); and

6) Personal Responsibility (including the ability to connect choices, actions, and consequences to ethical decision-making).

In keeping with the guidelines established by the THECB, this course MATH 1332 will address the following Core Curriculum Objectives: Critical Thinking Skills, Communication Skills, and Empirical and Quantitative Skills.

IV. Course Description & Introduction

Topics include introductory treatments of sets, logic, number systems, probability, statistics, and finance. Appropriate applications are included.

V. Learning Outcomes

The following learning outcomes are found in the *Lower-Division Academic Course Guide Manual*, published by the Texas Higher Education Coordinating Board:

A. Perform set operations, and use Venn diagrams.

B. Perform logical analysis, utilizing truth tables to evaluate arguments.

C. Demonstrate operations utilizing different numbering systems.

D. Calculate probabilities utilizing counting techniques.

E. Interpret population, sample, and data, measures of center, and measure of variation.

F. Solve financial problems.

G. Solve geometry problems.
VI. Assessment Methods & Grading Policy

Course grades will be based on the following:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Quizzes</td>
<td>30%</td>
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<tr>
<td>Homework Assignments</td>
<td>30%</td>
</tr>
<tr>
<td>Participation</td>
<td>10%</td>
</tr>
<tr>
<td>Final Examination</td>
<td>30%</td>
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All quizzes and homework assignments must be completed in MyMathLab. Participation assignments include discussions through Moodle and emails to the instructor using your student MyMail account. The final exam will be proctored and given on paper. **Late work is not accepted.** Grades will be updated in Moodle throughout the semester. Midterm grades will be posted in WebAdvisor after the completion of Module 2.

VII. Textbook & Reference Materials

*MyMathLab—Standalone Access Card*

Required materials can be reserved and purchased through the TSTC West Texas Bookstore; go to http://bookstores.tstc.edu/tstcabilene/ for more information.

VIII. Additional Resources & Supplies

A scientific calculator is required.

IX. Class Participation Policy & Student Conduct

Students are expected to participate fully online, completing all assignments as requested in order to learn the course material. Students are expected to act in a way that maintains the standards of an academic environment. To facilitate the learning process for all students, individuals should make respectful and responsible choices.

**Late assignments are not accepted.** Communicate any problems regarding assignment due dates as early as possible and prior to the due date.

Students are expected to adhere to the Code of Student Conduct. Section J refers to academic dishonesty. While studying with other students is appropriate and encouraged,
this is not meant to replace individual effort. Students who attempt to take credit for someone else’s work commit a serious offense. A first offense will result in the loss of credit for the assignment; a second offense will result in the loss of credit for the course.

The following are all considered academic dishonesty in this course.
- Working together on quizzes in MyMathLab
- Copying another student’s work on any assignment (homework, discussions, emails, quizzes, final exam)
- Plagiarism (see more information in Module 5)

X. Safety

There are no course-specific safety requirements for this class.

Students are expected to comply with all of the safety requirements and guidelines published in the TSTC Student Handbook (which can be found online through the college website at http://www.tstc.edu/student_life/catalog).

XI. Special Needs

If you have a documented disability that will impact your work in this class, please contact the ADA Coordinator so that appropriate arrangements for your accommodations can be made. The counselor on your campus can assist you in this process. In accordance with the federal law, a student requesting accommodations must provide documentation of his/her disability to the ADA Coordinator. For more information, call (325) 236-8292 or send an email to amy.freeman@tstc.edu.
XII. Course Schedule

This is subject to change. You will be notified if changes are made.

Weeks 1, 2, and 3: Logic and Critical Thinking (Chapter 1)
   A. Review the syllabus and other course information in Moodle and complete the Syllabus/Introduction Quiz by September 7, 2015 at 11:55 PM (You must complete the Syllabus/Introduction Quiz with a 100% in order to be counted as a SHOW in the course)
   B. Recognizing Fallacies (Section 1A)
   C. Propositions and Truth Values (Section 1B)
   D. Sets and Venn Diagrams (Section 1C)
   E. Analyzing Arguments (Section 1D)
   F. Critical Thinking in Everyday Life (Section 1E)
   G. Complete Homework 1A, Homework 1B, Homework 1C, Homework 1D, Homework 1E, Module 1 Discussion, Module 1 Instructor Contact Email, and Quiz 1 by September 21, 2015 at 11:55 PM (Original discussion post is due September 14)

Weeks 4, 5, and 6: Percentages and Finance (Chapters 3 and 4)
   A. Uses and Abuses of Percentages (Section 3A)
   B. Putting Numbers in Perspective (Section 3B)
   C. Taking Control of Your Finances (Section 4A)
   D. The Power of Compounding (Section 4B)
   E. Savings Plans and Investments (Section 4C)
   F. Complete Homework 3A, Homework 3B, Homework 4A, Homework 4B, Homework 4C, Module 2 Discussion, Module 2 Instructor Contact Email, and Quiz 2 by October 12, 2015 at 11:55 PM (Original discussion post is due October 5)

Weeks 7, 8, and 9: Statistics (Chapters 5 and 6)
   A. Fundamentals of Statistics (Section 5A)
   B. Should You Believe a Statistical Study? (Section 5B)
   C. Statistical Tables And Graphs (Section 5C)
   D. Characterizing Data (Section 6A)
   E. Measures of Variation (Section 6B)
   F. Complete Homework 5A, Homework 5B, Homework 5C, Homework 6A, Homework 6B, Module 3 Discussion, Module 3 Instructor Contact Email, and Quiz 3 by November 2, 2015 at 11:55 PM (Original discussion post is due October 26)

Weeks 10 and 11: Probabilities (Chapter 7)
   A. Fundamentals of Probability (Section 7A)
B. Combining Probabilities (Section 7B)
C. Counting and Probability (Section 7E)
D. Complete Homework 7A, Homework 7B, Homework 7E, Module 4 Discussion, Module 4 Instructor Contact Email, and Quiz 4 by November 16, 2015 at 11:55 PM (Original discussion post is due November 9)

Weeks 12 and 13: Geometry (Chapter 10)
   A. Fundamentals of Geometry (Section 10A)
   B. Problem Solving with Geometry (Section 10B)
   C. Complete Homework 10A, Homework 10B, Module 5 Discussion, Module 5 Instructor Contact Email, and Quiz 5 by November 30, 2015 at 11:55 PM (Original discussion post is due November 23)

Weeks 14 and 15: Review and Final Exam
   A. Complete final exam review
   B. Schedule final exam by November 23, 2015 at 5:00 p.m.
   C. Take final exam December 7, 8 or 9 of 2015
### Education

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<thead>
<tr>
<th>Name of Institution</th>
<th>Degree Earned</th>
<th>Date Earned</th>
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<tbody>
<tr>
<td>Texas Tech University</td>
<td>Master of Science in Mathematics</td>
<td>August 2005</td>
</tr>
<tr>
<td>West Texas A&amp;M University</td>
<td>Bachelor of Science in Mathematics</td>
<td>May 2003</td>
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### Industry, Teaching or Training, and Other

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<tr>
<th>Description of Experience Related To Course</th>
<th>Date Ended</th>
<th>Date Began</th>
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<tbody>
<tr>
<td>Texas State Technical College West Texas-Instructor of Mathematics</td>
<td>January 2006-present</td>
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<tr>
<td>Texas Tech University-Instructor of Mathematics; Teaching Assistant</td>
<td>August 2003-December 2005</td>
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<tr>
<td>West Texas A&amp;M University-Supplemental Instructor</td>
<td>January 2001-May 2002</td>
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