MAT 103
Quantitative Reasoning

INSTRUCTOR: Dr. Stella Wear  Office: Walters 270D  Phone: 846-4512
Email: swear@deltastate.edu

OFFICE HOURS:

<table>
<thead>
<tr>
<th>Monday and Wednesday</th>
<th>Tuesday and Thursday</th>
<th>Friday</th>
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<tbody>
<tr>
<td>10 – 11:00; 2 – 4</td>
<td>9:15 – 10:45</td>
<td>10 – 11</td>
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<td>Other times by appointment.</td>
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MY CLASS TIMES:

<table>
<thead>
<tr>
<th>Monday, Wednesday, Friday</th>
<th>Tuesday and Thursday</th>
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<tr>
<td>8 – 8:50; 11 – 11:50</td>
<td>8 – 9:15</td>
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<td>6 – 8:30 (Monday only)</td>
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Course Designation

MAT 103. Quantitative Reasoning. Numerical, visual, verbal, and symbolic aspects of quantitative reasoning with emphasis on interpretation of quantitative information in real world problems. Satisfies general education requirements. Prerequisites: 2 years of high school algebra. 3

Text

This is a custom textbook from Thomson Custom Solutions Company. It is bound especially for Delta State University. It is comprised of chapters taken from The Mathematical Palette (0-534-40365-4).

Content To Be Studied
1. Sets and Counting
2. Venn diagrams as a problem-solving tool
3. Modeling with Algebra
4. Calculation and interpretation of probabilities
5. Organization and description of data
6. Development and application of sampling procedures
7. Personal finance
8. Problem solving
9. Estimation, approximation and judging the reasonableness of answers

Specific Course Objectives
As a result of this course, the student will be able to:
1. Define key terms related to sets, venn diagrams, algebraic models, probability, statistics, and finance.
2. Use Venn diagrams to solve problems related to surveys.
3. Use counting techniques as methods of problem solving.
4. Interpret and calculate probabilities from frequency tables, pie charts, and experimental data.
5. Communicate results using the language of probability.
6. Gather, organize, describe, and analyze data to make and support decisions.
7. Compute and interpret statistics concerning data sets.
8. Develop and apply sampling procedures to surveys, quality control, and the life sciences.
9. Use graphical and algebraic techniques to determine solutions of equations as they relate to problem solving.
10. Apply a variety of problem solving techniques in solving real-world problems.

Presentation Methods
1. Lecture/demonstration (20%)
2. Cooperative learning through group work (40%)
3. Student-centered classroom discussions and activities (40%)
Requirements
1. Regular and punctual attendance.
2. Student preparation of homework assignments.
3. Student preparation of written* assignments.
4. Student participation in class discussions, group work, and projects.
5. A calculator with a $\sqrt{x}$ key and stats mode.

*As a part of homework, class assignments and tests, you will have writing exercises that require you to provide written explanations of concepts. Evaluation of the answers to such questions will include mathematical content as well as spelling, grammar, and sentence construction. An evaluation rubric will be provided prior to these assignments.

IMPORTANT DATES
Students who remain in the course after September 18 and who elect to drop the course will receive a grade of W if passing or F if failing the course at the time of the drop. A drop is not effective and complete until the drop slip has been turned in to the Registrar's Office. No course on campus may be dropped after November 9.

Evaluation and Grading
Grading Scale
Grades will be assigned according to the grading scale listed below.
A (90-100)  B (80-89)  C (70-79)  D (60-69)  F (below 60)

1. Most of the assigned exercises/homework will be collected, graded, and returned. If you are absent on a day when this work is collected, discuss your absence with me. Points will be deducted for late work.
2. Group projects will be assigned as a regular part of class requirements.
3. Homework, classwork, and project grades will be averaged and will count as one test grade at the end of the semester. This means that these assignments count 20% of your grade!
4. Three scheduled tests will be given during the semester. Each one counts 20% of your grade.
5. A comprehensive final examination will be given on December 6 at 8:00. The comprehensive final will also count as 20% of your final grade. You will be required to take the exam on the day it is given.
6. Two points will be added to your average at the end of the semester for perfect attendance.

Class Attendance And Make-up Tests
Prompt and regular attendance is necessary for success in this course. In order to receive credit in this course, a student must attend a minimum of 75% of the class meetings. No more than 10 total absences, excused and unexcused, will be allowed. If you exceed that number, you will be assigned a grade of "F" as the final grade in the course. To be counted present, you must arrive on time for the class and remain in class the entire time. Any absence from scheduled work must be covered by an excuse (doctor's or official university) before you are allowed to make up the work. It is the student's responsibility to bring the excuse and schedule a time for the make-up work.

Disabilities
Special arrangements can be made for a student with a documented clinically diagnosed physical or learning disability. The student should inform the instructor of any documented disability necessitating special provisions.

Assignment sheet
Since the assignments and content vary with the needs and interests of the class members, an assignment sheet for the entire course at this time is not practical. Prior to each chapter and/or test a study sheet that lists all the assignments and activities that apply to that chapter or test will be provided instead.