MATH 1053

Quantitative Reasoning

Course Description

Quantitative Reasoning is a critical skill that is necessary not only in many different disciplines but also in daily life. This course is about using math in practical situations that come up every day. Examples include balancing a checkbook and calculating accrued interest. The mathematical concepts covered in the course include arithmetic, algebra, geometry, and statistics.

Topic Areas

After successful completion of this course, each student should have an understanding of the following points in the topic areas:

1. **Numbers and Operations** – order, equivalence, number properties, sets, computation, ratio, proportion, percent, and numerical reasoning; also covers integers and order of operations and the rules of exponents

2. **Mathematical Processes** – problem-solving, proofs, connections and context, and representations

3. **Algebra** – equations and inequalities, algorithmic thinking, patterns, algebraic representations, and algebraic reasoning

4. **Geometry and Measurement** – geometric properties, geometric reasoning, systems of measurement, and using formulas.

5. **Statistics/Data Analysis** – data interpretation, data representation, trends and inferences, and measures of central tendency

Required Materials

MyMathLab access code is required, this online website is used to view videos and complete homework in this course. You will be registering and enrolling in MyMathLab along with this course.

An e-Textbook is included with the above access code, a hard copy is optional.

Textbook: Angel, Abbott, & Runde. A Survey of Mathematics with Applications (10th Edition)

ISBN-13: 978 0134112107

A scientific calculator is required

Accreditation

Southern Wesleyan University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate, baccalaureate, and masters degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097 or call 404-679-4500 for questions about the accreditation of Southern Wesleyan University.

Course Learning Outcomes

CLO#1	Apply problem-solving strategies to solve problems
CLO#2	Solve problems involving integers and exponents using the correct order of operations
CLO#3	Solve and graph linear equations and systems of equations
CLO#4	Solve consumer math problems involving compounded interest and monthly payments
CLO#5	Use metric units when calculating length, area, and volume
CLO#5	Apply formulas to determine the perimeter, area, surface area, and volume
CLO#6	Explore fundamental counting techniques and theoretical probability
CLO#7	Analyze data by computing measures of central tendency
CLO#8	Recognize and appreciate the ability of mathematics to teach us about God, about his creation and faithfulness, and to discover evidence for Himself that lies in the orderly and rational world around us.

Course Learning Assignments and Assessments

Grading

Online Discussions	15 %
MyMathLab Problems	45 %
Unit Assessments & Final	40 %

Total	**100%**

Online Discussions – 15 %

Please participate in the online discussion each week. Each Discussion will be graded using a rubric located in Canvas.

MyMathLab Problems – 45 %

Go to the Assignments section once you login to MyMathLab software and complete the problems for each week. Software problems are assigned each week, MML provides computerized, individualized feedback and help. It is an opportunity for you to work problems similar to the textbook problems using computerized help.

OR

In special circumstances, you may work on the problems in the textbook that corresponds to the assigned MyMathLab problems and submit a scanned image or camera picture of your paper. Each problem must be written clearly and labeled. All unreadable files will be assigned a "0" until a file is submitted that can be graded.

Unit Assessments – 40 %

There will be four unit tests and a comprehensive final. The tests and final are available in MyMathLab with a set of two attempts or downloaded as a PDF that you can complete and complete in your own writing then uploaded into Canvas. In those uploaded files, each problem must be written clearly and labeled. All unreadable files will be assigned a "0" until a file is submitted that can be graded.

GRADE EQUIVALENCY TABLE

All grades are reported in a system of eleven letter grades designated as "A" through "F" with appropriate plus and minus additions reflecting the following scheme:

Percentage Value	Letter Grade	Numeric Value for GPA

93-100	A	4.0
90-92	A-	3.7
86-89	B+	3.4
83-85	B	3.0
80-82	B-	2.7
76-79	C+	2.4
73-75	C	2.0
70-72	C-	1.7
65-69	D+	1.4
60-64	D	1.0
<60	F	0.0

Course Policies

Attendance Policy

Regular attendance is a key to success in the course. Please refer to the Attendance Policy outlined in the Catalog for full details of the SWU policy on attendance.

Online attendance is based on completion of at least one designated assignment by the due date/time posted within the course site for each session. Online activities may include lecture, assignments, readings, discussion forums, and assessments (e.g. quizzes, tests).

Communication

The course site (Canvas) and SWU email are the primary tools for class communication, assignments, handouts, etc. All participants must have access to the course site and SWU e-mail and are expected to access them on a daily basis.

While it is important to maintain good communication with the instructor, Internet connectivity problems and home computer problems are not considered adequate excuses for missing assigned class work.

Technology Requirements

To be successful in this course, all participants are expected to ensure their technology equipment meets the recommendations provided by SWU's Technology Services.

Students requiring technical support related to their courses or other SWU-provided technologies should send an e-mail to helpdesk@swu.edu or call 864.644.5050.

Academic Honesty

Honesty in all matters - including honesty in academic endeavors - is a valued principle at Southern Wesleyan University. It is the expectation of the university that all those joining the academic program will act with integrity in all matters.

No forms of academic dishonesty will be tolerated. Students are encouraged to help each other maintain these high standards. All academic dishonesty should be reported to the faculty directly. Faculty, upon evidence of academic dishonesty (cheating, plagiarism, or misuse of another's intellectual property), either by voluntary confession, report of another student, or on the basis of work submitted, must follow he procedure outlined in the Catalog (under *Academic Honesty*). This includes but is not limited to a zero for the work involved, 10% course grade reduction, or a failing grade for the course. Unresolved cases may be appealed using the Appeal Process outlined in the Catalog (under *Academic Honesty*).

Accommodations for Students with Disabilities

Southern Wesleyan University is committed to providing equitable access to learning opportunities for all students. Accommodations can be made for students with disabilities, as outlined in "Services for Students with Disabilities," found in mySWU's Student tab under The Learning Center. Any student desiring accommodations must send the request and all documentation to the Academic Coordinator at the learning site where he/she attends classes. The Academic Coordinator will forward the materials to the Student Success Coordinator for Southern Wesleyan University.