

MATH 1001 - Quantitative Skills and Reasoning
Hours Credit: 3 hours
Prerequisites: None
(80139) MATH-1001-08 and (82223) MATH-1001-01

COURSE INSTRUCTOR

Instructor: Vanthu Tran
Office:
Email: vtran@westga.edu
Phone:

OFFICE HOURS

Monday and Wednesday: 2:00-3:00 p.m.
Tuesday and Thursday: 9:30-11:30 a.m.
Or by appointment

REQUIRED COURSE MATERIALS

TEXT: *Thinking Mathematically, 6e*, by Robert Blitzer (Pearson/Prentice Hall)

Courses Description

This course is an alternative in Area A of the Core Curriculum and is not intended to supply sufficient algebraic background for students who intend to take Pre-calculus or the Calculus sequence for science majors. This course places quantitative skills and reasoning in the context of experiences that students will likely encounter. It emphasizes processing information in context from a variety of representations, understanding of both the information and the processing, and understanding which conclusions can be reasonably determined.

Learning Outcomes

Upon successful completion of this course students will demonstrate the ability to:

1. Interpret a wide variety of quantitative information
2. Use mathematical reasoning to analyze quantitative information, and use it to reach conclusions in real-world contexts.
3. Understand how mathematics and quantitative reasoning are an integral part of society and history
4. Process information and develop procedures for solving problems.
5. Use different units and formats of numbers including metric system and percentages.
6. Understand and deal with uncertainty in mathematics
7. Be able to interpret and calculate financial information including interest and loans.
8. Understand and interpret statistical results found in the media and society.

COURSE ASSESSMENT

Students' mastery of course learning outcomes will be assessed using the following methods:

Quizzes and Assignments	24%	(drop 3 lowest scores)
Tests – 4 as announced	51%	(drop 1 lowest score)
Comprehensive Final Exam	25%	

NOTE: Graphing calculators equivalent to the TI 83, 84, 85, and 86 will be allowed on the exam, as will scientific calculators. The TI-89 and other equivalent calculators will not be allowed.

Grading Scale:

90% - 100%:	A
80% - 89%:	B
70% - 79%:	C
60% - 69%:	D
<60%:	F

OTHER COURSE INFORMATION

Assignments/Quizzes: Homework is assigned daily and is due at the beginning of the next class day. You may turn in late assignment if the assignment is no more than one class day late, however, points will be deducted.

There will be in-class and/or take-home quizzes. Dates for the quizzes will be announced in class. There will be no make-up quizzes.

If you are not present for a quiz or fail to turn in an assignment, a zero is recorded.

Tests/Exam: You must take tests on the specified date. Usually, makeup tests will not be given unless you miss a test for reasons that are serious, unavoidable, and beyond your control. **You must contact me before the next class meeting if you miss a test or a zero is recorded.** When possible, you should notify me before missing the work.

The final exam is a required class meeting that will not be rescheduled for discretionary reasons, including conflicts with work schedules, conflicts with classes and exams at other colleges, and travel plans.

COURSE POLICIES AND INFORMATION

University Policies and Academic Support

Please carefully review the following Common Language for all university course syllabi at the link:

<https://www.westga.edu/UWGSyllabusPolicies/>

It contains important material pertaining to university policies and responsibilities. Because these statements are updated as federal, state, university, and accreditation standards change, you should review the information each semester.

Academic Honesty

NOTE: ALL FORMS OF ACADEMIC DISHONESTY SHOULD BE REPORTED AND THE STUDENT NOTIFIED.

Definitions of academic dishonesty are defined in the student handbook: www.westga.edu/handbook/

Disabilities Act/Accessibility for the Course

If you are a student whom is disabled as defined under the Americans with Disabilities Act and require assistance or support services, please notify me and provide me with a copy of your packet from Student Services. The university will provide you with resources for any audio/visual needs that you may have with the learning management system or course content.

Please contact UWG Accessibility Services for more information.

Student Conduct

Students are expected to abide by the guidelines detailed in the university catalog. Respect and courtesy are required of all students while in the classroom.

Attendance and Communication:

To provide all students with the most effective learning environment, you will be expected to be in class before instruction begins and to stay until the class is dismissed. If your schedule does not permit this to happen, you may need to change your schedule. If you miss a class, it is your responsibility to make up missed work. You are responsible for any material covered in your absence. Attendance will be taken and records will be sent to the Math Department. You are responsible for all announcements made in class and posted on CourseDen.

IMPORTANT DATES:

<u>First Day of Class:</u>	Wednesday, August 15
<u>Drop Ends:</u>	Friday, August 17
<u>Last Day to Withdrawal with W:</u>	Monday, October 8
<u>Last Day of Class:</u>	Friday, December 7
<u>Final Exam Period:</u>	December 8-14 (see The Scoop for specific times)
<u>No classes:</u>	Monday, September 3 (Labor Day)
	Thursday October 4 and Friday October 5 (Fall Break)
	Monday November 19- Friday November 23 (Thanksgiving)

TENTATIVE QUANTITATIVE SKILLS & REASONING SCHEDULE

(This schedule may be modified at any time with announcements in class, or in the CourseDen.)

<u>Week</u>	<u>Schedule</u>	<u>Content</u>
1 8/15	Syllabus	
2 8/20-8/22	1.1 1.2	Inductive and deductive reasoning Estimation, graphs, and mathematical models
	1.3 2.1	Problem solving Basic set concepts
3 8/27-8/29	2.2	Subsets
	2.3 2.4	Venn Diagrams and set operations Set operations and Venn Diagrams with three sets
4 9/3-9/5	No Class 9/3	
	2.5	Survey problems
5 9/10-9/12	Review ch.1 and 2	
	Test 1	
6 9/17-9/19	3.1 3.2	Statements, negations, and quantified statements Compound statements and connectives
	3.3	True tables for negation, conjunction, and disjunction
7 9/24-9/26	3.4	True tables for the conditional and the biconditional
	3.5*	Equivalent statements and variations of conditional statements
8 10/1-10/3	Review ch.3	
	Test 2	
9 10/8-10/10	8.1 8.2	Percent, sales tax, and discounts Income tax
	8.2 continue 8.3	Income tax Simple interest
	8.4 8.5	Compound interest Annuities, methods of saving, and investments
10 10/15-10/17	8.5 continue 8.6*	Annuities, methods of saving, and investments Cars

11 10/22-10/24	Review ch.8	
	Test 3	
12 10/29-10/31	11.1 11.2	The fundamental counting principle Permutations
	11.3	Combinations
13 11/5-11/7	11.4	Fundamentals of probability
	11.5	Probability with the fundamental counting principle, permutations, and combinations
14 11/12-11/14	Review ch.11	
	Test 4	
15 11/19-11/21	Thanksgiving Break	
16 11/26-11/28	12.1 12.2	Sampling, frequency distributions, and graphs Measures of central tendency
	12.3	Measures of dispersion
17 12/3-12/5	12.4 12.5*	The normal distribution Problem solving with the normal distribution
	Review ch.12	
18 12/10	MW 12:30-1:45 class Final Monday 12/10 11:00-1:00 pm	MW 5:30-6:45 pm class Final Monday 12/10 5:00-7:00 pm