Chaminade University of Honolulu

Math 100-90-2: Quantitative Reasoning and Mathematical Skills
Winter 2019

Course Description
Math 100-90-2 is a ten week online course delivered primarily through MyMathLab, a web-based learning platform. A study of various topics including an introduction to sets, logic, number systems, basic skills in algebra and geometry, consumer mathematics, probability and statistics, with an emphasis on problem solving, quantitative and logical thinking.

Instructor Information
Peter Anzalone, M.P.H.
Tel: 808-381-4513
Email: anzalonep@gmail.com : Please put "**Math 100 LastName**" in the subject line. I will respond within 24 hours.

Class Meeting Information
Location: Online
Dates: 1/07/2019 – 3/19/2019

Textbook and MyMathLab Subscription:
A subscription to MyMathLab is required. When you purchase access to MyMathLab, it includes an electronic version of the text, Thinking Mathematically-Seventh Edition, Blitzer, Robert 2019, Boston, MA: Pearson Education.

1. Go to www.pearson.com/mylab .
2. Under Register, select Student .
3. Confirm you have the information needed, then select OK! Register now.
4. Enter your instructor's course ID: **anzalone64716**, and Continue .
5. Enter your existing Pearson account username and password to Sign In.
    - You have an account if you have ever used a MyLab or Mastering product.
    - If you don't have an account, select Create and complete the required fields.
6. Select an access option.
    - Enter the access code that came with your textbook or that you purchased separately from the bookstore.
    - If available for your course,
        - Buy access using a credit card or PayPal.
        - Get temporary access.
7. From the You're Done! page, select Go To My Courses .
8. On the My Courses page, select the course name **Quantitative Reasoning & Math Skills MA-100-90 Winter 2019** to start your work.

Grading
A ≥ 90%, B = 80% to 89%, C = 70% to 79%, D = 60% to 69%, F < 60%

Quizzes = 80 (10 pts each x 8)
HW = 120 (15 pts each x 8)
Exams = 200 (100 pts each x 2)
Term Project=50
Max total = 450

Assignments
Assignments will consist of weekly homework, weekly quizzes, a mid-term exam, a final exam and a final project. All assignments will be completed through MyMathLab.

Project
As active participants in the learning experience, each student is required to investigate the role mathematics plays in a topic of their choice and submit a 3 page paper describing their research. The paper is due the last week of class.

The topic you select may be anything related to mathematics must be one either one that demonstrates the significance mathematics has in an "every day" application like your job or a hobby or one that we have not covered in class. Some examples of topics are:

- Mathematics and (your favorite sport)
- Mathematics and Art/Music
- Numerology
- Pythagoras and Pythagorean Society
- Mathematics and Personal Finances
- Scuba Diving and Dive Tables
- Mathematics and Gambling
- The Number Zero

Policy on Make Up Work
There are no make-up quizzes, homework, or exams. All work must be completed by the due date. If, for any reason, work cannot be completed on-time, arrangements must be made with the instructor prior to the due date.

Learning Expectations and Course Objectives
At the end of this course, the student will gain knowledge of the following topics:

1. Inductive and Deductive Reasoning
2. Estimation
3. Problem Solving
4. Basic Set Concepts, Subsets, Venn Diagrams and Set Operations
5. Problem Solving using Logic and Truth Tables
6. Our Hindu-Arabic System and Positional Number Systems
7. Number Theory: Prime Numbers and Composite Numbers
8. The Integers: Order of Operations
9. Exponents and Scientific Notations
10. Algebraic Expressions, Formulas and Linear Equations
11. Percent, Sales Tax, and Income Tax
12. Mathematics and Finance
13. Geometry and Trigonometry
14. Euler Paths, Euler Circuits. Hamilton Paths and Hamilton Circuits
15. The Fundamental Counting Principle
16. Permutations and Combinations
17. Fundamentals of Probability

Academic Integrity Policy
As members of the Chaminade University community, we are all commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Chaminade degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form.

ADA Accommodations
Students with special needs who meet criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodations from the CUH Counseling Center by the end of week three of the class, in order for the instructor to plan accordingly. Failure to provide written documentation will prevent your instructor from making the necessary accommodations.

Marianist Educational Values:
1. Educate for formation in faith
2. Provide an integral quality education
3. Educate in family spirit
4. Educate for service, justice & peace
5. Educate for adaptation & change

Winter 2019 Schedule and Calendar:

Week 1 7-13 January	Inductive and Deductive Reasoning Estimation, Graphs and Mathematical Models Problem Solving	1.1 1.2 1.3
Week 2 14-20 January	**Quiz 1, Homework 1 due: 14 January** Basic Set Concepts Subsets Venn Diagrams and Set Operations Set operations and Venn Diagrams with Three Sets Survey Problems	 2.1 2.2 2.3 2.4 2.5
Week 3 21-27 January	**Quiz 2, Homework 2 due: 21 January** Statements, Negations, and Quantified Statements Compound Statements and Connectives Truth Tables for Negation, Conjunction and Disjunction Truth Tables for the Conditional and the Biconditional Equivalent Statements and Variations of Conditional Statements Arguments and Truth Tables	 3.1 3.2 3.3 3.4 3.5 3.7
Week 4 28 January – 3 February	**Quiz 3, Homework 3 due: 28 January** Our Hindu-Arabic System and Early Positional Systems Number Bases in Positional Systems	 4.1 4.2
Week 5 **4-10 February**	**MID-TERM EXAM due: 4 February** Number Theory: Prime and Composite Numbers The Integers: Order of Operations The Rational Numbers The Irrational Numbers Exponents and Scientific Notations	 5.1 5.2 5.3 5.4 5.6
Week 6 11-17 February	**Quiz 4, Homework 4 due: 11 February** Algebraic Expressions and Formulas Linear Equations in One Variable and Proportions Applications of Linear Equations Linear Inequalities in One Variable	 6.1 6.2 6.3 6.4
Week 7 18-24 February	**Quiz 5, Homework 5 due: 18 February** Percent, Sales Tax, and Discounts Income Tax Simple Interest Compound Interest Annuities, Methods of Saving, and Investments	 8.1 8.2 8.3 8.4 8.5
Week 8 25- February- 3 March	**Quiz 6, Homework 6 due: 25 February** Points, Lines, Planes, and Angles Triangles Right Triangle Trigonometry Beyond Euclidean Geometry Graphs, Paths and Circuits Euler Paths and Euler Circuits Hamilton Paths and Hamilton Circuits	 10.1 10.2 10.6 10.7 14.1 14.2 14.3
Week 9 4-10 March	**Quiz 7, Homework 7 due: 4 March** The Fundamental Counting Principle Permutations Combinations Fundamentals of Probability Probability with the Fundamental Counting Principle, Permutations & Combinations	 11.1 11.2 11.3 11.4 11.5
Week 10 **11-18 March**	**Quiz 8, Homework 8 due: 11 March** **Term Project due: 18 March** **FINAL EXAM due: 18 March**	