

MATH 119

Description: The main focus of this course is to develop awareness of occurrences, structures and uses of mathematics. Problem-solving techniques will be emphasized both in small group and in large group settings. Implications for the classroom teacher will be discussed. Techniques and uses of writing in the mathematics classroom will be studied. Particular attention should be paid to clarify some topics for the NY Next Generation Standards that the students will have to start using in real teaching assignments.

Text: Math for Elementary Teachers: A conceptual approach.
Bennet, Burton and Nelson 10th Edition
ISBN-10: 0078035651, ISBN-13: 9780078035654, McGraw Hill.

This course satisfies the Mathematical and Quantitative Reasoning (MQR) requirement of the Pathways General Education Required Core. Below is the Learning Outcomes that all MQR courses satisfy:

MQR 1: Interpret and draw appropriate inferences from quantitative representations, such as formulas, graphs, or tables.
MQR 2: Use algebraic, numerical, graphical, or statistical methods to draw accurate conclusions and solve mathematical problems.
MQR 3: Represent quantitative problems expressed in natural language in a suitable mathematical format.
MQR 4: Effectively communicate quantitative analysis or solutions to mathematical problems in written or oral form.
MQR 5: Evaluate solutions to problems for reasonableness using a variety of means, including informed estimation.
MQR 6: Apply mathematical methods to problems in other fields of study.

Course Objectives:

By the end of this course, the students will

1. Develop a repertoire of problem-solving techniques.
2. Solve problems presented within the context of the following content areas:
Sets, Functions, and Reasoning
Elementary Number Theory (e.g., Factors; Primes; GCF; LCM).
Integers and Fractions
Elementary Statistics and Probability
Elementary Geometry, Measurements
3. Have an understanding of how to connect and be able to access Common Core Standards information.

Principal focus for the material is covered on the chapters 1, 2, 4, 5, 7, 8, 10.

The book has an emphasis on theory and examples and with that in mind in the first page of our customized edition you will find the outline of theorems or topics to be studied and discussed in class. While starting with page 479 you will find outlines that address Common Core Standards for Elementary Mathematics.

Student Evaluation based on: Examinations (mid-term and final)
Projects
Journals
Class participation