

COURSE OUTLINE

Revision: Frank Post and Heidi Lyman, December 2008

DEPARTMENT:	Academic Programs
CURRICULUM:	Mathematics
COURSE TITLE:	Math in Society
COURSE NUMBER:	MATH& 107
TYPE OF COURSE:	Academic Transfer
Special Requirement Met:	QSR (if using Math& 107 to meet both IA proficiency requirement and the QSR requirement, students must earn a minimum of 2.0 in the course)
AREA(S) OF KNOWLEDGE:	The Natural World: Science Technology, and the Environment/ The Language of Science; Basic Requirement: Math
COURSE LENGTH:	1 quarter
CREDIT HOURS:	5
LECTURE HOURS:	55
LAB HOURS:	0
CLASS SIZE:	35
PREREQUISITES:	Math 098 with a 2.0 or better or appropriate placement score.

COURSE DESCRIPTION:

Topics will be chosen from the following: Set theory, counting methods, probability, statistics, graph theory, linear programming, logic, finance, geometry, matrices, exponential and logarithmic functions, and computer applications.

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STUDENT LEARNING OUTCOMES ADDRESSED:

May include (depending on chosen course content)

1. Computation – Use arithmetic and other basic mathematical operations as required by program of study. Apply quantitative skills for personal, academic and career purposes.
2. Communication – Read and listen actively to learn and communicate.
3. Critical thinking and problem-solving – Think critically in evaluating information, solving problems, and making decisions.
4. Technology – Select and use appropriate technological tools for personal, academic and career tasks.
5. Information Literacy – Access and evaluate information. Use information to achieve personal, academic, and career goals, as well as to participate in a democratic society.

GENERAL COURSE OBJECTIVES:

Any 4 out of 9 topics will be covered by the instructor. The students will do most or all of the following:

1. Demonstrate success on evaluations over the topics studied.
2. Be able to work with the basic arithmetic and basic mathematical skills.
3. Work to build a foundation of math skills for their program of study.
4. See very basic algebra skills in proportion and percent problems.
5. Use quantitative skills for applications in modern world.
6. Develop skills in basic measurement.
7. Develop skills in solving applications and thinking critically.
8. Develop regular attendance and time management/organization skills

TOPICAL OUTLINE:

Topics to be determined from the following list by the math instructor:

- I. Logic
- II. Sets and counting
- III. Probability
- IV. Statistics
- V. Finance
- VI. Geometry
- VII. Matrices
- VIII. Linear programming
- IX. Exponentials and logarithmic functions

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TOPICAL OUTLINE CONTINUED:

- X. Computer applications
- XI. Graph theory

APPROX. HOURS: 55

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SLO #	Included in Course Objective Number	SSCC Student Learning Outcomes
SLO 1.1	1 – 7	Communication - Read and listen actively
SLO 1.2		Communication - Speak and write effectively
SLO 2.1	1 – 7	Computation - Use mathematical operations
SLO 2.2	1 – 7	Computation - Apply quantitative skills
SLO 2.3	1 – 7	Computation - Identify, interpret, and utilize higher level mathematical and cognitive skills
SLO 3.1		Human Relations - Use social interactive skills to work in groups effectively
SLO 3.2		Human Relations - Recognize the diversity of cultural influences and values
SLO 4.1	1 – 7	Critical Thinking and Problem Solving -
SLO 5.1	1 – 7	Technology - Select and use appropriate technological tools
SLO 6.1	8	Personal Responsibility - Be motivated and able to continue learning and adapt to change
SLO 6.2	8	Personal Responsibility - Value one's own skills, abilities, ideas and art
SLO 6.3	8	Personal Responsibility - Take pride in one's work
SLO 6.4		Personal Responsibility - Manage personal health and safety
SLO 6.5	1 – 8	Personal Responsibility - Be aware of civic and environmental issues
SLO 7.1	1 – 7	Information Literacy - Access and evaluate information
SLO 7.2	1 - 7	Information Literacy - Use information to achieve personal, academic, and career goals, as well as to participate in a democratic society

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