SU DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE
SYLLABUS (*Tentative*)
MATH 105: *Liberal Arts Mathematics: Math for the Environment*

OBJECTIVES: To introduce students to computation, mathematical modeling, descriptive statistics, and estimation in the context of environment related examples

INTENDED FOR: Students, particularly those with an interest in nature and the environment, who need a mathematics course to satisfy a General Education requirement

PREREQUISITES: High School Algebra II and plane geometry

TEXT: *Quantitative Reasoning and the Environment: Mathematical Modeling in Context*, by Greg Langkamp and Joseph Hull, 1st edition, Pearson Prentice Hall 2007, ISBN 978-0131485273

TECHNOLOGY: A basic scientific calculator (not necessarily a graphing calculator) that handles exponents and logarithms. All software used is available in campus computer labs.

	No. of Weeks
Chapters 1-3: Essential Numeracy Measurement & units, melting of the ice caps; ratios & percentages, habitat of lakes in Florida; charts & graphs, U.S. energy flows.	**4**
Chapters 4-6: Function Modeling Linear functions, population growth; exponentials functions, broiler chicken production; power functions, modeling earthquakes.	**4 - 5**
Chapters 11-12: Elementary Statistics Measures of center, spread & position, electric bills, urban runoff; the normal distributions, estimation, taxes on toxics.	**4 - 5**
Tests	**1**

EVALUATION

Homework & Class Work:	20%
Projects:	30%
Exams:	30%
Final Exam:	20%

TAM