

SU DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE
 SYLLABUS (*Tentative*)
 MATH 313 *Survey Design and Sampling*

- Objective:** To study basic principles for constructing surveys, so that one can determine how to get useful information from a survey at low cost.
- Intended For:** Students in Social Science, Natural Science, Business or Nursing who are faced with conducting surveys or critically reading the works of others based upon surveys.
- Prerequisite:** MATH 155 or MATH 213.
- Textbook:** "Elementary Survey Sampling," by Scheaffer, Mendenhall and Ott; Duxbury, 6th edition, 2006.
- Projects:** Minitab will be used extensively throughout the course. Two major projects will be assigned which will require the use of Minitab and a full written report.

	Weeks
Chapters 1 & 2 <i>Introduction and Review</i>	1
Chapter 3 <i>Elements of the Sampling Problem</i>	1
Chapter 4 <i>Simple Random Sampling</i>	2
Chapter 5 <i>Stratified Random Sampling</i>	2
Chapter 6 <i>Ratio, Regression & Difference Estimation</i>	2
Chapter 7 <i>Systematic Sampling</i>	1
Chapter 8 <i>Cluster Sampling</i>	1
Chapter 9 <i>Two-stage Cluster Sampling</i>	1
Chapter 10 <i>Estimating the Population Size</i>	1
Chapter 11 <i>Supplemental Topics</i>	1
<i>Tests</i>	<u>1</u>
	14

EVALUATION

Tests	40%
Homework/Quizzes	20%
Projects	20%
Final Exam	20%

NOTE: ONCE A STUDENT HAS RECEIVED CREDIT, INCLUDING TRANSFER CREDIT, FOR A COURSE, CREDIT MAY NOT BE RECEIVED FOR ANY COURSE WITH MATERIAL THAT IS EQUIVALENT TO IT OR IS A PREREQUISITE FOR IT.