

**COURSE SYLLABUS
FOR
STATISTICAL SAMPLING
(STA/MTH 381) – SPRING 2008
CLASS LOCATION: LDB 219 -- MEETING TIME 9:30 – 10:50 TTh**

TITLE: Statistical Sampling

INSTRUCTOR: Dr. Cecil Hallum

PHONE: 294-3706

OFFICE: LDB 420C

OFFICE HOURS: 9:30 – 11:00 and 2:00 – 3:00 MW
11:00 – 12:00 TTh
& by appointment

TEXT: *Elementary Survey Sampling, Sixth Edition*, by R. L. Scheaffer, Wm. Mendenhall III, and R. L. Ott, Thompson-Brooks/Cole, 2006.

DESCRIPTION: This course covers the fundamentals of statistical sampling concepts and will guide the student through basic statistical procedures to permit critical insight into the science of survey sampling.

OBJECTIVE: To develop an understanding of and a facility for the concepts and applications of statistical sampling methodology.

APPROACH:

1. Lectures on new concepts and applications.
2. Assigned problems for experience and familiarity with techniques.
3. Classroom discussions on applications --- appropriate usage and value.
4. Examinations to demonstrate understanding and ability to utilize methods.

APPRAISAL:

Exam I.....	30%
Exam II.....	30%
Final Exam.....	25%
Homework.....	15%

TOTAL	100%

SPECIAL NOTE: Performance on exams is directly related to success on homework --- all homework is to be kept current, neatly together, in sequence, and ready to be handed in upon request.

POLICIES:

- 1. Make-up Exams --- DO NOT MISS AN EXAM!!** Make-up exams are to be avoided. If you miss an exam because of illness and have a doctor's release, all makeup exams will be given at an arranged time in the last couple days of the semester.
- 2. Withdrawal ---** University policy will be followed: the last day for drop/withdrawal is as documented in the Schedule of Classes for this semester. It is your personal responsibility to initiate and complete the drop/withdrawal process.
- 3. Homework ---** Since topics in the course sequence build upon preceding topics, it is expected that you will remain current in all assignments; also you should have your homework neatly assembled together at all times and be ready to hand it in upon request.
- 4. Incomplete ---** A grade of "X" or "Incomplete" is not appropriate for this course.
- 5. Attendance ---** Since lectures and in-class discussions are for you, you are expected to be in attendance at all classes.
- 6. Class Behaviour --** Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Cellular telephones and pagers must be turned off before class begins. Students are prohibited from eating in class, using tobacco products, making offensive remarks, reading newspapers, sleeping, talking at inappropriate times, wearing inappropriate clothing, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in a directive to leave class. Students who are especially disruptive also may be reported to the Dean of Students for disciplinary action in accordance with university policy.
- 7. Academic Honesty ---** All work that is handed in for evaluation is to reflect solely your individual performance. All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials.

**COURSE
SEQUENCE**

WEEK 1: Chapter 1: Introduction

WEEK 2: Chapter 2: Elements of the Sampling Problem

WEEK 3: Chapter 3: Some Basic Concepts of Statistics

WEEK 4: Chapter 4: Simple Random Sampling

WEEK 5: Chapter 5: Stratified Random Sampling (Up through Section 5.5)

WEEK 6: Chapter 5: Stratified Random Sampling (Continued)

Review and Exam 1

WEEK 7: Chapter 6: Ratio, Regression, and Difference Estimation

WEEK 8: Chapter 7: Systematic Sampling

WEEK 9: Spring Break Week

WEEK 10: Chapter 8: Cluster Sampling (Up through Section 8.6)

WEEK 11: Chapter 8: Cluster Sampling (Continued)

WEEK 12: Chapter 9: Two-stage Cluster Sampling (Up through Section 9.4)

Review and Exam 2

WEEK 13: Chapter 9: Two-stage Cluster Sampling (Continued to completion).

WEEK 14: Chapter 10: Estimating the Population Size

WEEK 15: Chapter 11: Supplemental Topics

WEEK 16: Chapter 12: Course Wrap-up and Summary

WEEK 17: Review and Final Exam

HAVE A FANTASTIC SEMESTER!!