

COURSE SYLLABUS
MTH 384
FOUNDATIONS OF MATHEMATICS
3 SEMESTER HOURS CREDIT
Summer II 2008

Location of Class:	LDB 401
Class Meeting Time:	8:00 – 9:50 M-F
Instructor:	Dr. John Huber
Office Location:	Lee Drain Building – Room 421-D
Instructor Contact Information:	Office Phone: 936-294-1589 email: jhuber@shsu.edu
Office Hours:	By appointment only

Course Description

This course includes an introduction to logic, the concept of proof, proof techniques, mathematical induction, and sets. MTH 285 is required as a prerequisite for this course.

Course Objectives

- Learn the fundamental concepts, principles, and skills of logic, proof, and sets.
- Learn to analyze and critically evaluate ideas and proofs.
- Develop a broader understanding and appreciation of the foundations of mathematics.

Course Outline

Inductive and Deductive Reasoning
Statements and Logical Operators
Logical Equivalence, Tautologies and Contradictions
The Mathematics of Logic
Quantifier
Introduction to Mathematical Proofs
Direct Proof
Proof by Contraposition
Proof by Contradiction
Proof by Mathematical Induction
Sets and Subsets
Operations on Sets

Basic Properties of Sets
Power Sets
Relations
Equivalence Relations
Partitions
Functions

Required Textbook: No Textbook Required

Attendance Policy

Attendance is *extremely* important. Regular and punctual attendance is expected. Course grades may be lowered up to one-half letter grade for each one hour absence in excess of three hours. Students should discuss each absence with the instructor.

Assignments

Major Examinations (3)	75%
Final Examination	25%

Major Examinations

There will be three major examinations in this course. You should notify the instructor in advance if you must miss a class during which time a major examination is scheduled. The instructor, at his discretion, may allow you to take the exam early. In the event this is not possible, the final exam grade will replace the exam missed. Each major exam will be worth 100 points.

Final Examination

The final examination is comprehensive. It will be multiple-choice and will be worth 100 points.

Final Examination Schedule

The final exam for this course will be on Thursday, August 7, 2008 from 8:00 a.m. – 9:45 a.m.

Grading Plan

The course grade will be determined by the average of the three (3) major exam grades and the final exam grade. In the event your grade on the final exam is higher than your lowest major exam grade, the final exam grade will replace the score on the exam with the lowest grade. If the final exam grade is replacing a missed exam, the final exam grade will only be used in place of the missed exam. The letter grade will be determined as follows:

90 – 100	A	60 – 69	D
80 – 89	B	< 60	F
70 – 79	C		

Academic Dishonesty

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.

Classroom Rules of Conduct

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.

Visitors in the Classroom

Unannounced visitors to class must present a current, official SHSU identification card to be permitted in the classroom. They must not present a disruption to the class by their attendance. If the visitor is not a registered student, it is at the instructor's discretion whether or not the visitor will be allowed to remain in the classroom.

Americans with Disabilities Act

It is the policy of Sam Houston State University that no otherwise qualified disabled individual shall, solely by reason of his/her handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any academic or Student Life program or activity. Disabled students may request assistance with academically related problem stemming from individual disabilities by contacting the Director of the Counseling Center in the Lee Drain Annex or by calling 936-294-1720.

Religious Holidays

A student who is absent from class for the observance of a religious holy day will be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. Students will be excused to travel for observance of a religious holy day. A student who wishes to be excused for a religious holy day must present the instructor with a written statement describing the holy day(s) and the travel involved. Upon receiving the statement the instructor will provide the student with a written description of the deadline for the completion of missed exams or assignments.

Instructor Evaluations

You may be asked to complete a course/instructor evaluation form toward the end of the semester.

Syllabus Revision

The instructor reserves the right to revise any part of this syllabus as deemed necessary throughout the semester. Revision, if necessary, will be announced during class.