

**COURSE SYLLABUS**  
**MTH 381.03**  
**FOUNDATIONS OF MATHEMATICS III**  
**3 SEMESTER HOURS CREDIT**  
**SPRING 2008**

<b>Location of Class:</b>	LDB 431
<b>Class Meeting Time:</b>	MW 8:00 a.m. – 9:20 a.m
<b>Instructor:</b>	Dr. John Huber
<b>Office Location:</b>	Lee Drain Building – Room 421-D
<b>Instructor Contact Information:</b>	Phone: (936) 294-1589 Email: <a href="mailto:jhuber@shsu.edu">jhuber@shsu.edu</a>
<b>Office Hours:</b>	9:30 – 11:00 MW 8:00 – 9:30 TuTh Others by appointment

### **Course Description**

This Course is the third in a series of courses designed to develop the necessary foundations in mathematics for prospective elementary teachers. Students are expected practice communication skills and participate in hands-on activities, including the use of mathematics manipulatives and technology. Topics include National and Texas standards for teaching mathematics, problem solving, discrete mathematics, probability, and data analysis. MTH 184 with a grade of C or better is a prerequisite for this course.

### **Course Objectives**

- Demonstrate an understanding of the four-step problem solving process.
- Solve mathematical problems using a variety of strategies and techniques, such as make a diagram, look for a pattern, eliminate possibilities, use logical reasoning, and guess and check.
- Solve interest and growth problems using recursion techniques.
- Use graph theory techniques to solve discrete mathematics problems.
- Determine fairness of voting systems using preference schedules, run-off, and borda count methods.
- Solve probability problems involving simple and compound events.
- Apply theoretical and experimental probability techniques while solving problems.
- Solve combinatorics problems using a variety of counting techniques.

- Construct and interpret different types of graphs, including bar graphs, line graphs, pie charts, stem and leaf plots, box and whisker plots, and scatter plots.
- Understand the difference between correlation and causation.
- Calculate and apply measures of central tendency, such as mean, median and mode.
- Calculate and apply measures of variation, such as range, interquartile range, and standard deviation.
- Use the normal distribution to solve problems.

**Required Textbook:**

*Mathematical Reasoning for Elementary Teachers* (Fourth Edition), 2006. Calvin T. Long and Duane W. Temple. Pearson Education.

**Spring Break**

Spring break will be Monday through Friday, March 10 – 14, 2008.

**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.

**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 Monday, May 12, 2008 from 8:00 a.m. – 10:00 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 you 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. If you are suspected of academic dishonesty in this course you may be assigned a failing grade for the paper, project, exam, or the course itself.

## 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**

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Counseling Center and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: no accommodation can be made until you register with the Counseling Center.

## **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 to right to revise any part of this syllabus as deemed necessary throughout the semester. Revisions, if necessary, will be announced during class.