

Course Syllabus
Math 364W
Introduction to Mathematical Thought
3 Credits
Spring 2008

- **Class meeting information:** Class meets in 218 LDB, 11:00 - 12:20 TTh

- **Professor:** Dr. Brian Loft
Office: 434 LDB

e-mail: loft@shsu.edu
Office Phone: 294-4465

web-page: http://www.shsu.edu/~mth_bml

- **Office Hours:**

Monday 10:00 - 11:00

Tuesday 1:30 - 2:30

Wednesday 11:00 - 12:00

Friday 10:30 - 11:30 and, of course, by appointment.

- **Course Description:**

This course includes an introduction to sets, logic, the axiomatic method and proof.

Students taking Math 364 must have completed Math 143 with a grade of C or better or have consent of instructor.

- **Course Objectives:**

Students completing this course should have mastery of the following major concepts. Other techniques and ideas will also be covered.

- Logic of conditional statements including the inverse, converse, contrapositive, and negation of statements.
- Knowledge of different techniques of proof, including proof by contradiction, proof by induction, and direct proof.
- Definitions in set theory, and set operations.
- Equivalence relations
- Partitions
- Functions
- Other topics as time allows

- **Required Textbook:**

Chapter Zero, 2nd Ed., by Carol Schumacher.

- **Attendance Policy:** Students are expected to attend every class.

Students are expected to arrive to class on time. If a student is perpetually late, they will be asked to not attend class unless they arrive on time. If tardiness becomes a problem for the class as a whole, people who arrive late will not be permitted to enter the class.

- **Assignments:**

1. **Homework:** Homework will be assigned in class each day. Not all homework problems will be collected, but students are expected to complete all homework assignments.

All turned in work must be original. No outside sources may be used, other than the textbook, advice from the instructor or consultation with classmates. Any work must be written in your own words. Copying a correct proof without understanding the method is considered incorrect and incomplete work.

It is your responsibility to ask questions about homework problems which you were not able to complete or did not understand. It is your responsibility to come to office hours, or otherwise contact someone for help. You may contact me via e-mail if you cannot make it to office hours, and I will try to answers questions as clearly as I can via e-mail.

2. **Participation:** During much of the class each day, students will be expected to present a proof to the class. Each student should have several problems prepared each day, and will be asked to write a complete solution on the chalkboard. Grades will be assigned based on the number (and frequency) of problems presented, as well as the completeness of the solutions.

Those students not presenting a proof must pay attention to the method, ask pertinent questions of the presenter, and take note of the method used. Participation by the audience is a large part of the grade of the course.

- **Exams:** There will be two exams during the semester. They are tentatively scheduled to occur on:

Midterm Exam: Tuesday, March 4	Final Exam: Thursday, May 15, 11:00 - 1:00
--------------------------------	--

The exams will contain both in- and out-of-class components. More on this later.

Any changes to this schedule will be announced in class and posted on the web-page. There will be no makeup exams, except for official University-sponsored activities.

- **Grading Plan:** The course grade is based on:

Class work / Participation	40%
Midterm Exam	30%
Final Exam	30%

The course grade will be assigned via a standard 10-point scale. There is no additional curve in this class, and no extra credit, so keep up as the semester progresses.

- **Academic Dishonesty:** All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain 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 using tobacco products in class, 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:** Only registered students may attend class. Exceptions can be made on a case-by-case basis by the professor. In all cases, visitors must not present a disruption to the class by their attendance. Students wishing to audit a class must apply to do so through the Registrar's Office.

- **Student Absences on Religious Holy Days Policy**

Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. Section 51.911 (a) (2) defines a religious holy day as: a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). The instructor will complete a form notifying the student of a reasonable timeframe in which the missed assignments and/or examinations are to be completed.

- **Disabled Student Policy**

It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance are expected to visit with the Office of Services for Students with Disabilities located in the Counseling Center . They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired.

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.

- **Additional Information** All information on this syllabus is subject to change. Any changes will be announced in class.