

# Course Syllabus

**Department** : Mathematics

**Course Title** : Structures of College Math I

**Section Name** : MATH\_1332\_2

**Start Date** : 01/18/2011

**End Date** : 05/13/2011

**Modality** : FACE-TO-FACE

**Credits** : 3

## Instructor Information

**Name** : Charles Sweatt

**OC Email** : csweatt@odessa.edu

**OC Phone #** : (432) 335-6634

## Course Description

**MATH 1332 Structures of College Mathematics I (27.0101.5119) (3-0) 3 hours**

Topics covered will include sets, logic, number systems, relations and applications, concepts of mathematics and problem solving. The student will learn to select appropriate mathematical techniques and technologies and use these skills in problem solving. Students will develop and/or discover mathematical relationships. This course is designed primarily for liberal arts and education majors.

## Prerequisites/Corequisites

Prerequisite: MATH 0375 passed with a C or better or high school Algebra II or passing score on TASP/THEA math section.

**Scans:** 3, 8, 9, 11

# Course Objectives

After completing this course, the student should be able to demonstrate competency in:

- 1.0 Critical thinking skills
- 2.0 Sets
- 3.0 Logic
- 4.0 Systems of numeration
- 5.0 Number theory and the real number system
- 6.0 Consumer mathematics

## **COURSE CONTENT:**

Chapters 1 - 5 and chapter 11 as time allows.

## **ATTENDANCE:**

Attendance is factored into your term grade. Attendance will be taken during each class period. You can earn up to 6 points bonus for perfect attendance. The 6 points bonus is reduced by 1 bonus point for each hour you are absent. In order to do well in the class you must attend regularly.

## **HOMEWORK:**

Homework problems will be assigned for most class periods, and the accumulative score on your homework will count as 12% of your final grade. The assignments will be assigned in class and are due at the next class period. It is your responsibility to get the homework assignment if you are absent. No late homework will be accepted in May.

## TESTS:

There will be 4 tests and a comprehensive final exam. If you miss a test, you will be allowed to take a makeup test. If you take the test and score lower than a 70% then you will be allowed to correct the test with the max possible of 70% for the corrections. The grade on a corrected test will be proportional to your corrections. There will be no corrections on the final and/or makeup test. You must take the final exam. Test dates will be announced in class at least two class period before the test. The 4 tests will count as 60% of your grade. You are not allowed to use notes on the tests.

## TUTORIAL HELP:

If you have trouble with any of the material in this course, do not hesitate to ask for assistance. It will get worse if you wait. You may ask questions in class, come to my office during office hours, or go to the Math Lab in ET 120. Please note that it may be difficult to find tutorial help out side of the above mentioned sources.

## Required Readings/Materials

A) You must purchase the following **required** readings/materials:

A Survey of Mathematics with Applications 8<sup>th</sup> ed by Angel, Abbott, & Runde

B) You are encouraged to buy the following *optional* books/materials

NONE

C) Calculators are useful but not required.

## Course Requirements (Lectures, Assignments/Assessments)

The course will consist of homework assigned by section, four chapter tests (Chapters 1 & 2, Chapter 3, Chapter 4, Chapter 5), and a comprehensive final exam.

## Summary of Assignments & Activities

| Item(Name)       | Type     | Description  | Due |
|------------------|----------|--|-----|
| HW 1.3           | Homework | Problem solving  | TBA |
| HW 2.1           | Homework | Set Concepts   | TBA |
| HW 2.2           | Homework | Subsets  | TBA |
| HW 2.3           | Homework | Venn Diagrams and Set Operations                               | TBA |
| HW 2.4           | Homework | Venn Diagrams with Three Sets and Verification of Set Equality | TBA |
| HW 2.5           | Homework | Applications of Sets   | TBA |
| Chapter 1&2 Test | Test 1   | Chapter 1 and Chapter 2 Test I                                 | TBA |
| HW 3.1           | Homework | Statements and Logical Connectives                             | TBA |
| HW 3.2           | Homework | Truth Tables: Negation, Conjunction, and Disjunction           | TBA |
| HW 3.3           | Homework | Truth Tables: Conditional and Biconditional                    | TBA |
| HW 3.4           | Homework | Equivalent Statements  | TBA |
| HW 3.5           | Homework | Symbolic Arguments   | TBA |
| HW 3.6           | Homework | Euler Diagrams and Syllogistic Arguments                       | TBA |
| HW 3.7           | Homework | Switching Circuits   | TBA |
| Chapter 3 Test   | Test 2   | Chapter 3 Test   | TBA |
| HW 4.1           | Homework | Additive, Multiplicative, and Ciphred Systems of Numeration    | TBA |

|                |            |  |            |
|----------------|------------|--|------------|
| HW 4.2         | Homework   | Place Value or Positional-Value Numeration Systems | TBA        |
| HW 4.3         | Homework   | Other Bases  | TBA        |
| HW 4.4         | Homework   | Computation in other bases                         | TBA        |
| HW 4.5         | Homework   | Early Computation Methods                          | TBA        |
| Chapter 4 Test | Test 3     | Chapter 4 Test                                     | TBA        |
| HW 5.1         | Homework   | Number Theory                                      | TBA        |
| HW 5.2         | Homework   | Integers   | TBA        |
| HW 5.3         | Homework   | Rational Numbers                                   | TBA        |
| HW 5.4         | Homework   | Irrational Numbers and the Real Number Line        | TBA        |
| HW 5.5         | Homework   | Real Numbers and their Properties                  | TBA        |
| HW 5.6         | Homework   | Rules of Exponents and Scientific Notation         | TBA        |
| HW 5.7         | Homework   | Arithmetic and Geometric Sequences                 | TBA        |
| Chapter 5 Test | Test 4     | Chapter 5 Test                                     | TBA        |
| HW 11.1        | Homework   | Percent  | TBA        |
| HW 11.2        | Homework   | Personal Loans and Simple Interest                 | TBA        |
| HW 11.3        | Homework   | Compound Interests                                 | TBA        |
| HW 11.4        | Homework   | Installment Buys                                   | TBA        |
| Final Exam     | Final Exam | Comprehensive Final Exam                           | 12/06/2010 |

## Grading Policy

The base grade will be 60% from the four hourly exams, 12% from the homework, 28% from the final exam. The attendance bonus will be added to the base grade.

## Term Averages vs Numerical Grades

|           |            |            |            |           |
|-----------|------------|------------|------------|-----------|
| $\geq 90$ | 89.99 - 80 | 79.99 - 70 | 69.99 - 60 | $\leq 60$ |
| A         | B          | C          | D          | F         |

## Special Needs

Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. If you have any special needs or issues pertaining to your access to and participation in this or any other class at Odessa College, please feel free to contact me to discuss your concerns. You may also call the Office of Disability services at 432-335-6861 to request assistance and accommodations.

## Learning Resource Center (Library)

The Library, known as the [Learning Resources Center](#), provides research assistance via the [LRC's catalog \(print books, videos, e-books\)](#) and [databases \(journal and magazine articles\)](#). [Research guides](#) covering specific subject areas, [tutorials](#), and the "[Ask a Librarian](#)" service provide additional help.

## Student E-mail

Please access your [Odessa College Student E-mail](#), by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **All assignments or correspondence will be submitted using your Odessa College email.**

## Student Portal

Please access your Student Handbook

## STUDENT HANDBOOK

[Odessa College Student E-mail](#), by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **All assignments or correspondence will be submitted using your Odessa College email.**

## Technical Support

For Blackboard username and password help and for help accessing your online course availability and student email account contact the Student Success Center at 432-335-6878 or online at [https://www.odessa.edu/dept/ssc/helpdesk\\_form.htm](https://www.odessa.edu/dept/ssc/helpdesk_form.htm).

## Important School Policies

For information regarding student support services, academic dishonesty, disciplinary actions, special accommodations, or student's and instructors' right to academic freedom can be found in the [Odessa College Student Handbook](#).