Fall 2012 : MATH-1 , Section #10

GENERAL INFORMATION

Instructor:  DR. GEETHA RAMACHANDRAN

Office: Room BRH-127 - Brighton Hall
Office Hours: M W F 10:00 a.m. – 10:30 a.m.
            M W 2:00 p.m. – 2:45 p.m.
            also BY APPOINTMENT

Title: MATHEMATICAL REASONING

Catalog Description: This course is recommended for students whose majors do not include
a specific mathematics requirement. The course objectives are
to show some of the essence and quality of mathematics, and to
enhance precision in the evaluation and expression of
mathematical ideas, thereby developing a student’s quantitative
reasoning skills. This course is designed to give students
an understanding of some of the vocabulary, methods, and
reasoning of mathematics with a focus on ideas.

Prerequisites: Math 9 or three years of high school mathematics
which includes two years of algebra and one year of geometry;
completion of the ELM requirement.

Learning Objectives: Understand and develop appreciation of the structure, elegance,
rigor and the beauty of mathematics and mathematical ideas.
Introduce the vocabulary, methods and reasoning from the areas
of Set Theory, Number Theory, The Real Number system,
Counting Methods, Probability and Statistics,
and Consumer Mathematics.

Class Hours: M W 4:00 p.m. – 5:15 p.m. in BRH–209
Text: Mathematical Ideas
      by Miller, Heeren and Hornsby, Twelfth edition

Coverage: We will closely follow the text and cover
chapters 1, 2, 5, 6, 10, 11, 12, and 13.
There will be three midterm tests
and a comprehensive final examination.
Homework: Problems from the exercises section in the text will be suggested for practice. Some homework using MyMathLab will be assigned periodically. The students should regularly solve the assigned problems and use the services of the Math Lab (BRH–118) to ensure they have learned the techniques correctly.

Writing Component: MATH 1 satisfies Area B4 of the GE requirements. Students are advised to practice interpreting the results of mathematical solutions using technical and non-technical language while solving assigned word problems dealing with real life situations. Assignments will involve writing and understanding complex technical prose, interpretation of theoretical concepts, and use of mathematical ideas to accomplish a variety of tasks. Class discussions will emphasize this writing component requirement of the course through the above criterion.

Examinations:

- **Test 1 on 09/26/12** (Wednesday, 4:00 - 5:15 p.m.)
- **Test 2 on 10/24/12** (Wednesday, 4:00 - 5:15 p.m.)
- **Test 3 on 11/19/12** (Monday, 4:00 - 5:15p.m.)
- **Final Exam on 12/12/12** (Wednesday, 3:00 - 5:00p.m.)

Grading: Midterm Tests 60%

Final Exam 40%

Letter grade will be assigned on the basis of a weighted average score according to the above weighting scheme and the guidelines in the latest catalog.
Drops: You may drop this course without penalty until Friday, October 5, 2012. For procedural details refer to the DROP POLICY document of the CSUS Math & Statistics department. On or after October 5, 2012 you MUST be passing this course (with a grade of C or better) and must comply with the department’s DROP POLICY in order to drop this course without penalty.

Attendance: The class dynamics requires your regular attendance and participation in discussions. You should go over the class material regularly and complete all assignments in timely fashion. You should regularly consult the web page to keep yourself informed of new assignments and their deadlines. Experience shows that such effort is highly correlated with good performance in the course.

- Homework problems and general information about the course will be posted in my website at http://www.csus.edu/indiv/r/ramachandrang/

- NO MAKE-UP TEST WILL BE GIVEN.