

New Mexico State University - Grants Branch

Math 210G: Mathematics Appreciation

3 Cr.

Instructor: Sharon MacKendrick

Class times: MW, 3:50 – 5:10

Phone: 287-8244 (H) or 287-6648 (MW only)

e-mail: [smackend@nmsu.edu](mailto:smackend@nmsu.edu) or [smackend@7cities.net](mailto:smackend@7cities.net).

Office hours: Monday and Wednesday: 3:15 – 3:45; after class if necessary

Overview: Math 210G covers mathematics and its role in the development and maintenance of civilization. Successful completion of this course fulfills the General Education requirement for Mathematics. Prerequisites: A grade of C or better in CCDM 114N or CCDM 113N, or high school algebra and a score of 60 or above on the Elementary Algebra portion of the Computerized Placement Test. Because a written report is required for Math 210G, successful completion of ENGL 111G (Rhetoric and Composition) is also a prerequisite.

Expected Outcomes: In order to get a feel for how mathematicians think, students will be led to discover mathematical patterns. Historical aspects of mathematics will be learned through class discussion and individual student research. Although it is to be hoped that students will learn to appreciate mathematics for its own sake, topics from mathematics will sometimes be related to other fields such as art and finance. Examples of specific topics likely to be covered are: symmetry and tessellations; Pascal's triangle; Fibonacci numbers; fractal geometry; exponential functions and logarithms.

Instructional Activities: Classroom activities will consist of lectures, group discussions, small group work and oral presentations by students.

Evaluation: Evaluation will be based on homework and group work completed in class, a scrapbook, oral presentations, and a series of short projects. To receive full credit on homework and projects, all work must complete, neat, understandable, and turned in on time. Group work completed in class may not be made up except in emergencies, so that the final grade may be adversely affected by unexcused absences. Forty percent of the course grade will be based on homework and group work, 20% on the scrapbook, 20% on oral presentations, and 20% on projects.

Grading scale will be as follows:

90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
Below 60	F

Text: *Math is Everywhere! Explore and Discover It!* By James J. Rutledge. The use of a scientific calculator will be encouraged at times in this course. A student whose budget does not allow for a scientific calculator may check out a TI-30X115 from Marlene Chavez-Toivanen.

**Short Projects:** Students will be given a choice as to which projects to complete. Each project will be worth from 10 to 25 points, with a total of 100 points to be completed by the end of the semester. Up to 20 points worth of extra projects may be done, so that the project grade could end up being as high as 120 points. Options for projects will be given at appropriate times during class. At least two projects must be completed before the deadline to withdraw from the class.

**Scrapbook:** Near the end of the semester, each student will be required to turn in a scrapbook. The scrapbook may be about some historical aspect of mathematics. The scrapbook is to contain both mathematical and historical information. More detailed information will be provided later.

**Oral Presentations:** At the end of the semester, each student is to give an oral presentation related to the scrapbook. This presentation will be worth 50 points. Each student is to give an oral presentation based on one of the projects, with no two students using the same project for this oral presentation. This presentation will be worth 30 points. At least twice during the semester, each student is to work one of the homework exercises on the board. Each of these presentations will be worth 10 points. At least one of these 10-point presentations must be completed before the deadline to withdraw from the class.

## SYLLABUS ADDENDUM

- The instructor may modify this syllabus to meet the needs of a particular class.
- If you have, or believe you have, a disability and would benefit from any accommodation(s), you may wish to register with the Student Services Office on the first floor of Martinez Hall. All medical information will be treated confidentially. After you have registered, please make sure that I receive a copy of the accommodation memorandum from Student services within the first two weeks of class. It will be the student's responsibility to inform me or the office of Student Services (in a timely manner) if services/accommodations provided are not meeting your needs. Feel free to call Ms. Irene Charles-Lutz, Campus Student Services Officer, at 287-6629 with any questions about the Americans with Disabilities Act (ADA), and/or Section 504 of the Rehabilitation Act of 1973.
- If you have a condition that may affect your ability to exit safely from the premises in an emergency or that may cause an emergency during class, you are encouraged to discuss any concerns with Ms. Irene Charles-Lutz, Campus Student Services Officer at 287-6629, or Angela Velasco, NMSU EEO/ADA Director at 505-646-3333.
- Any student found guilty of academic misconduct shall be subject to disciplinary action. Academic misconduct includes, but is not limited to, the following actions: cheating; helping other students cheat; plagiarism; unauthorized possession of examinations, reserve library materials or laboratory materials; unauthorized changing of grades on an examination, instructor's grade book or grade report; nondisclosure or misrepresentation in filling out applications or other college records. The following disciplinary actions and sanctions may be imposed for any of the above infractions of regulations: Disciplinary Probation, Disciplinary Suspension, Dismissal, and Expulsion. At the very least, academic misconduct may result in a failing grade in this class.
- Students are expected to attend regularly all classes for which they are registered. When the number of absences is excessive and hinders a student's progress, the instructor may recommend expulsion from the class. For a 16-week course, that means more than **three consecutive absences or five cumulative absences**. Based on the recommendation of the instructor, and with the concurrence of the Campus Instructional Officer and the Campus Student Services Officer, a student will be dropped for persistent absences or for persistent failure to complete class assignments. Similarly, a student may be dropped for behavior that interferes with the educational environment of the class. Any student who has been dropped has the right to appeal through the student Academic Grievance Policy (see the Student Handbook).
- The student code of conduct prohibits children in the classroom except under unusual circumstances. Please respect the right of others students to learn in an environment with a minimum amount of disturbances and interruptions.