

## **Syllabus: Math 44 (Section 13Z), Fall 2023**

**4:00 – 6:15 PM Tuesday and Thursday, Online**

Instructor: Dr. Bill Wilson

Office Hours: 3:00-3:45 Tuesday, Thursday online (or by appointment)

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Phone: 408-309-3956

**TEXTBOOK: The Heart of Mathematics: An Invitation to Effective Thinking**, 4<sup>th</sup> edition by Burger and Starbird. The book is available as an ebook for rental for \$50 from Wiley at <https://www.wiley.com/en-us/The+Heart+of+Mathematics%3A+An+Invitation+to+Effective+Thinking%2C+4th+Edition-p-9781119668282>

**Course Description:** A survey of selected topics from contemporary mathematics, including problem solving techniques and connections between mathematics and culture. Includes a selection of introductory topics from symmetry; graph theory; chaos and fractals; topology; number theory; geometry; combinatorics and counting; the mathematics of social choice; data analysis, probability and statistics; consumer mathematics and personal financial management.

**Homework:** Homework will be assigned each week and will be due the following Tuesday. Some homework problems will be graded for correctness and the rest for completion.

**Exams:** Two exams will be given plus the final exam. Exam dates will be announced at least a week ahead of time. There will be no makeups. If an exam is missed because of a valid excuse, an equivalent of the final exam score will be used as the score for the missed exam.

**Quizzes:** Regular quizzes will be given. Quizzes will be announced at least one class ahead of time.

**Mathematical Autobiography:** A detailed description will be provided in class.

**Group Project:** You will be asked to work on a project in a group and to create a written report and give a short presentation during the last week of class, details will be provided in class.

**Final Exam:** A comprehensive final exam will be given on December 14 from 4:00 PM to 6:00 PM.

**Accommodations:** Students requiring accommodations are welcome in this class. Please notify me and DSS of any special requirements. Go to <https://www.deanza.edu/dss/> for more information.

**Grading:** 2 midterms @ 15% = 30%  
Homework and mathematical autobiography: 15%  
Quizzes: 10%  
Group project: 25%  
Final exam: 20%

**Scale:** A: 93+      A-: 90+  
B+: 87+      B: 83+      B-: 80+  
C+: 77+      C: 70+  
D: 60+  
F: < 60

Expectations of Students:

1. **Academic dishonesty will not be tolerated.** If a student is found cheating on an exam or quiz, he or she will receive a 0 for the item. Repeated instances of cheating may lead to failing the course and further action.
2. **Showing your work.** You need to show your work on homework and exams to receive full credit.
3. **Respect you fellow students.** Silence cell phones and tablets in class.

**Student Learning Outcome(s):**

- Analyze contemporary mathematical problems, apply problem solving techniques using a variety of methods, and communicate the results mathematically through a variety of forms.
- Demonstrate and correctly apply basic mathematical techniques in at least five of the following ten areas: symmetry, graph theory, fractals and chaos theory, topology, number theory, geometry, combinatorics, methods of social choice, probability and statistics, economics and personal finance.
- Examine and evaluate myths and realities about the contemporary discipline of mathematics and its practitioners.

**Office Hours:**

T,TH 03:00 PM 03:45 PM Zoom