

## Math 131: Survey of Mathematics Spring 2005

Text: Edward B. Burger and Michael Starbird, *The Heart of Mathematics: An invitation to effective thinking, First Edition*

Instructor: Susan Goldstine

E-mail: [sgoldstine@smcm.edu](mailto:sgoldstine@smcm.edu)

Phone: x4366

Office: Schaefer 171

Office Hours: Monday 1:00–2:00, Tuesday 10:00–11:00,  
Tuesday 3:00–4:00, Thursday 2:00–3:00  
and by appointment.  
Drop-ins are welcome, as long as I happen to be free.

Course Web Page: <http://www.smcm.edu/users/sgoldstine/Math131s05.html>

TA: Simon Lutterbie

E-mail: [sjlutterbie@smcm.edu](mailto:sjlutterbie@smcm.edu)

### Evaluation

Creative Works (2)		50%
Weekly Homework		20%
Class Participation		10%
Final Essays	Math as Metaphor Essay	10%
	Personal Statement	5%
	Quality of Failure	5%

### Course Goals

“The realm of mathematics contains some of the greatest ideas of humankind—ideas comparable to the works of Shakespeare, Plato, and Michelangelo. These mathematical ideas helped shape history, and they can add texture, beauty, and wonder to our lives.”

*The Heart of Mathematics*

The easiest way to summarize the goals of this course is to direct you to the *Welcome!* section of your textbook. Please read it.

In this class, you will take an active role in exploring some of the most profound ideas of mathematics. As you proceed, you will experience the full process of mathematical endeavor, complete with false starts, puzzling impasses, startling insights, glorious successes, and the inevitable discovery of new questions from old solutions.

We will cover the first three chapters of the book, plus whichever of the remaining chapters we choose together.

The classes will be divided between lectures and in-class activities with an emphasis on the latter, so be prepared for a non-passive classroom experience. In addition to the weekly homework, you will have a number of less-structured creative assignments. These will be described in more detail in future handouts.

One of the great parts of this course will be discovering new ideas together. To this end, **I request that you do NOT read ahead in the book.**

Welcome to the course.