

# Math 130: Contemporary Mathematics

## Spring 2009

### Course Procedures

**Professor:** Josh Laison

Collins 305, x6689, [jlaison@willamette.edu](mailto:jlaison@willamette.edu)

#### Office Hours:

Monday 3:00-4:30

Wednesday 3:00-4:30

Tuesday 10:00-11:30 AM, at the Bistro

or anytime by appointment or by catching me in my office. You can see my schedule and available times at <http://www.willamette.edu/~jlaison>

**Class Meetings:** Collins 204, 10:20-11:20 Monday, Wednesday, Friday

**Drop-In Math Lab Help:** The math hearth or Collins 306  
6:00-9:00 PM, Sunday through Thursday

**Text:** The Heart of Mathematics, 2nd edition, Edward Burger and Michael Starbird

**Course Web Page:** <http://www.willamette.edu/~jlaison/contemporary.html>

#### Grading:

Daily problems (around 25)	25%
Team projects (around 6)	25%
Individual problems (around 6)	25%
Class attendance and participation (41 days)	25%
<b>Total</b>	<b>100%</b>

#### Course Goals:

- Have fun doing mathematics.
- Think hard about mathematics.
- Create our own mathematical ideas.

#### The Textbook:

The text is probably different from any other math text you have seen (I know that is true for me) and you might be surprised that it is actually fun to read. Certainly, reading it will provide you with greater understanding of the material of the class, and improve your grade.

#### Ways to Get Unconfused:

- I encourage you to find classmates to work together with on problems, even if you're not confused! For the team problems, this is even built into the assignment. Only the individual problems must be done by yourself.

- Find me in my office during my office hours or at other times, and I will be more than happy to answer questions. Feel free to hang out in the math hearth or in my office and work on homework there. These are great places to meet other students from the class and work together, and I will be easily available for questions.
- Come to the evening group study sessions held by the math department in the math hearth. Math majors are paid by the department to hang out and answer math questions 5 nights a week. These are also great places to form study groups. Since you need to do your homework sometime, why not do it then?

### Assigned Problems:

In this course, you will learn quite a lot of mathematics, but with a slightly different emphasis than other mathematics courses you may have taken in the past. The course is not a prerequisite for any other, and it is unlikely that you will require the material you learn in this course for your career after you graduate. The material is simply presented to satisfy your own intellectual curiosity.

I will try as hard as I can to avoid making any problem you attempt in this course tedious or overly frustrating. Mathematics is all about solving puzzles, exploring patterns, and getting insights into new ideas. For your part, try not to race through the problem assignments with the goal of arriving at the solution as quickly as possible. Play with the ideas! Invent new problems and solve those! Discuss the problems with your friends and classmates! The problems are intended not as hurdles to be leapt over, but as intellectual challenges to be enjoyed. I hope that you will enjoy them as much as I do. *To encourage you to think creatively, particularly interesting, creative, or unique solutions to any problem in this course will be given extra credit. This includes solving a related question that you pose yourself.*

There will be three types of assigned problems in this course. All of them will be available on the course webpage at least a few days before they are due.

- **Daily Problems:** These will be due every Monday, Wednesday, and Friday by 4:30 PM, starting Wednesday, January 21, and should be turned in either to me in class, or to the folder outside my office, Collins 305. These are the only component of the course graded by a student grader.
- **Team Projects:** Team projects will be due approximately once every two weeks. You will work with a team of one or two other students on these, and will turn in a single project for your team. This does not mean that you should divide up these problems and each work on a third of them. They are meant to be discussed in collaboration. I hold you accountable to be an active member of your team.
- **Individual Problems:** The individual problems will also be due around every two weeks. You may not talk to anyone other than me about the individual problems. These problems will be your chance to show your individual problem-solving ability. They will be related to topics covered in class, but different enough that you can work on them independently and still work on the other two types of problems collaboratively.

Since the individual problems are the only completely independent work I will receive from you this semester, please make every effort to keep your work on these problems independent. Collaboration on the individual problems counts as cheating in the course, and will have serious consequences.

### **Missed Classes:**

Attendance and participation in class counts for 25% of your final grade. You may miss 3 days of class without it affecting your grade; more than that will lower this component of your grade. In addition, attendance by itself will not get you an A for class participation – you should make an effort to be an active participant in class activities and discussions.

### **Late Assignments:**

I expect everyone to attend all classes and turn in all homework assignments on time. Unfortunately, it is inevitable that some people will have crises during the semester that will prevent them from turning in homework on time. If this happens to you, talk to me about it, and I will generally be sympathetic.

### **Disabilities:**

If you have a documented disability for which accommodations may be required in this class, please contact me to discuss your needs. Additionally, you will need to register with Disability and Learning Services in the Bishop Wellness Center within the first two weeks of class. All such discussions will be confidential.

### **Academic Honesty:**

Cheating and plagiarism are serious offenses and will be treated severely, in accordance with college policy. In addition, I am personally insulted by such behavior. So please don't do it. These are the practices I expect you to follow in each of the components of the course:

**on daily problems:** You may, and are encouraged to, discuss the homework with anyone, get help from calculators, your textbook, etc. However, your submitted written work should be your own.

**on team projects:** The members of the team should contribute equally to producing the final product. Do not put your name on work written by others.

**on the individual problems:** You may consult your text and notes. You may not discuss the individual problems with anyone other than me, and you may not consult other sources such as the library or the internet.