

# Math 486: Graph Theory

## Fall 2008

### Course Procedures

**Professor:** Josh Laison

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

#### Office Hours:

Monday 10:30-11:30

Wednesday 10:30-11:30, at the Bistro

Thursday 2:30-3:30

Friday 1:30-2:30

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 306, 9:40–11:10, Tuesday, Thursday

**Textbook:** Introduction to Graph Theory, 2nd edition, Douglas West

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

#### Grading:

Homework assignments (14)	25%
Quizzes (14)	20%
Take-home exams (2)	30%
Class presentation (1)	20%
Math colloquium talks (4)	5%
<b>Total</b>	<b>100%</b>

**Topics Covered:** We will start with sections 1.1–1.4, 2.1, 2.3, 3.1, 3.2, 4.1, 5.1, 5.2, 6.1–6.3, and 7.2 of West, and branch out into more topics as time permits. The class presentations at the end of the course will give us a chance to see a wider range of topics.

**Homework assignments:** These assignments will be due about once every week. You may work together on these problems; in fact, you may have the opportunity to work on them in class. However, please write your solutions to these problems in your own words.

**Quizzes:** We will have an in-class quiz about once a week. They should take about 15 minutes. There are many vocabulary words you will need to learn in graph theory, probably more than in other areas of mathematics. The quizzes are designed to help you study this vocabulary. Each quiz will ask you to define a small number of words which have been defined in class. Note that the quiz will not necessarily test you on the vocabulary of the day before; you will need to remember all the definitions so far.

**Class presentations:** Graph theory is a very diverse field of math, with a lot of different subfields. In the last few weeks of class, we'll get a chance to see some of this variety of topics by having each student present one in class. These presentations will be 30–40 minutes. We'll

talk about them more later in the semester, and I'll give you a list of suggested topics and resources to learn about each one.

**Attendance at the Math Department Colloquium:** According to math department policy, since you are enrolled in a 400-level mathematics course, you are required to attend at least 4 mathematics department colloquium talks. The goal of this requirement is to expose you to a wider range of mathematics, and to make you want to go to more than 4 talks! I hope you will decide by the end of the semester, as I have, that math talks are a lot of fun.

**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 the homework problems:** You may, and are encouraged to, discuss the homework with anyone, get help from your textbook, notes, computer algebra systems, etc. However, your submitted written work should be your own.
- **on the quizzes and exams:** You may consult your text and notes. You may not discuss the individual problems with anyone other than me.