

# Syllabus for Math 201, Discrete Mathematics

MWF 2:30 (Appleton 201), Spring 2010

Dr. Tamara Veenstra

## Contact Information:

<b>Office</b>	Appleton 221	<b>Office Hours</b> MWF: 9:30-1:30; TH: 1:30-3:30; Others by appointment or luck (anytime I'm there)
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Note: I will be gone to a conference for the first two days of class, Jan 13 and 15. There will be no class, but there will be HW due on the 18<sup>th</sup>.

*Prerequisite:* A 1.7 or higher in MATH 122 (2.7 or higher recommended) or permission.

*Text:* Discrete Mathematics with Graph Theory, 3<sup>rd</sup> Edition, Goodaire and Parmenter

## Course Objectives:

to **understand** concepts and techniques from discrete mathematics (a branch of mathematics entirely different from calculus) including:

- mathematical logic and proof
- sets and set theory
- counting techniques: permutations, combinations, combinatorial arguments
- graphs and trees
- algorithms and complexity theory

## Topics:

I am hoping to cover at least chapters 2, and 5-12. The topics may vary somewhat based on what you are most interested in. We will discuss 1-2 sections per day.

*Grading:* Homework - 30%  
Quizzes - 10%  
Exams - 60%

**Homework:** There will be daily homework assignments consisting of reading and exercises. Usually HW will be collected and graded. Occasionally, you will present these problems on the board as part of class discussion. You are expected to thoroughly read assigned sections in the book, regardless of whether they are discussed in class or not. HW is due at the beginning of class. Late HW will be penalized. All HW assignments will be posted on my website and in blackboard; if you are absent being absent from class is not a justification for late HW.

**Quizzes:** There will be quizzes approximately once a week, usually on Friday. There may be additional unannounced (pop) quizzes as necessary. These will cover recent material from class, homework problems, and reading. No makeup quizzes will be given unless arranged prior to the quiz.

*Examinations:* There will be 3 in-class exams and a final with each worth 15% of your grade. The in-class exams are tentatively scheduled for **Feb 15, Mar 19, and Apr 9**. No make-up exams unless arranged prior to the exam. The final will be comprehensive and is scheduled by the Office of the Registrar for **Sat Apr 24** at 3 pm.

**First HW assignment:**

I will be gone for the first two days of class, so we will not be meeting and you will have a reading and exercise assignment instead. We will discuss these when I get back on Monday.

Due Mon Jan 18. Read sections 2.1 and 2.2 and do 2.1(1,3,5,7,9,11) and 2.2(1,5,6,10,15,18,20). This is a basic introduction to sets and properties of sets so it should be pretty straightforward. These problems will be checked, presented on the board and discussed on Monday.

-AND-

Due by Fri Jan 15. Email me the answer to the following questions:

- What's your name? (as you wish to be called)
- What math courses have you taken so far at Redlands?
- Why are you taking this course? What do you hope to learn in it?
- Have a look at the table of contents for this book. What topics are you most interested in?
- Please tell me anything you think I should know about you, and/or anything you'd like to tell me about yourself.