

**Instructor:** Dr. Laura Taalman**Office:** Burruss 127**Phone:** 568-3355 (W), 442-8800 (H)**E-mail:** taal@math.jmu.edu**Website:** www.math.jmu.edu/~taal**Instant Message:** AskLauraMath**Course Objectives**

Discrete Mathematics and Introduction to Proof (Math 245) is the prerequisite for all other proof-based courses in the Department of Mathematics and Statistics. The main objectives of the course are for you to become good at reading mathematics, proficient at writing proofs, and in general reach a higher level of mathematical maturity. Oh, and of course, along the way you will learn some discrete mathematics.

**Class Times**

Tuesdays and Thursdays 2:00-3:15 in Miller 130.

**Office Hours**

Mondays 2:00-4:00, Tuesdays 3:30-4:00, Thursdays 3:30-4:00, and by appointment.

**Textbook**

*A Discrete Transition to Advanced Mathematics*, by Bettina Richmond and Thomas Richmond.

**Class Website**

[www.math.jmu.edu/~taal/245\\_2005.html](http://www.math.jmu.edu/~taal/245_2005.html)

**Grades**

Your grade for the course will be based on the following assignments and exams:

Homework	10 pts each	× 25	250 pts
Participation	10 pts each	× 25	250 pts
Tests	100 pts each	× 3	300 pts
Final Exam	200 pts	× 1	200 pts

Total: 1000 pts

The number of homework assignments and participation days are approximate. I will use statistics and common sense to give you a letter grade for the course based on your numerical average. Please note that I do *not* use an arbitrary predetermined scale such as 90=A, 80=B, etc.

**Structure of Class**

Class will not be in the typical lecture format. You will learn most of the material by reading the book and doing the homework exercises, not by listening to me paraphrase the book for you. Most of the classroom time will be spent in discussion. A typical class day will proceed as follows:

- At the beginning of class you will hand in homework for Section  $k - 1$ . All homework must be typeset in  $\LaTeX$  to get full credit. (The  $\LaTeX$  portion of the assignment is worth 3 out of 10 points, so a handwritten assignment can earn at most 7 points.)
- The bulk of class will be spent discussing the more difficult points in the reading and the homework problems you have done for Section  $k$ . You may be asked to go to the board. You will be graded on the level of your participation and your preparedness for the discussion.
- Based on what happened in the discussion, I will choose a subset of the assigned homework problems from Section  $k$  to be typed up in  $\LaTeX$  and handed in the next class day.
- The last 15-20 minutes of class will be a short preview lecture of the material from Section  $k + 1$ . You will have to carefully read Section  $k + 1$  and complete the bulk of the assigned homework for Section  $k + 1$  for the next class day.

## Expectations and Other Information

- Please bring your book with you to class every day.
- I encourage you to work with other students on the homework assignments, and talk about mathematics as much as possible. Get a study group together *now*, and meet often.
- I will put a copy of the Student Solution Manual for the book on one of the bookshelves in the Burruss Hall student lounge (room 117). It is my hope that you will go to the lounge, meet with other students in the class, and work together. Please do not steal the solution manual; I paid for it myself and do not want to have to buy another one.
- Although I keep saying that you should be working together (and you should), what you hand in to be graded should be your own work. If I even slightly suspect academic dishonesty, I will hand over any evidence I have to the Honor Council and let them deal with you. This is not personal. It is for your protection and mine. I absolutely will not tolerate any plagiarism. If you are unsure about what constitutes plagiarism, please ask!
- I will drop the lowest two homework scores when computing your final grade for the course.
- ***I do not accept late homework.*** However, contact me as soon as possible if you have an emergency or special situation. (Note: I mean CONTACT me, don't just TRY to contact me.)
- ***I do not give make-up tests.*** Again, contact me immediately if you have an emergency or special situation. My sympathy with your plight will be proportional to how quickly you speak with me about it.
- The exams will consist of problems based on the homework and the material in the reading, including definitions, theorems, calculational problems, conceptual problems, and of course, proofs (which will be graded based on mathematical accuracy as well as your proof-writing ability).
- The final exam will be cumulative.
- Note that you can reach me in my office, by email, over IM, and by phone. For time-sensitive matters please feel free to call me at my home phone any day of the week (including weekends) until midnight.
- I do usually check email multiple times a day. I'm often available through IM in the evenings. I am not usually at my office phone. If you leave me a phone message at home or the office, I probably won't hear it for a few days, so try again later.
- Here is a picture of my son Calvin Grey Riley, who will be one year old in November. You can see more pictures at [www.filora.com/calvin.html](http://www.filora.com/calvin.html).

