

**Welcome to Math 330 Discrete Math – Spring 2015**  
**9:00 - 9:50 M-F in Lind 204**

**Instructor:** Dr. Jean Marie Linhart

**Phone:** (509) 963-2123

**Webpages:** (course) <http://canvas.cwu.edu>  
(me) <http://www.cwu.edu/math/jean-marie-linhart>

**Office:** Bouillon 119

**E-mail:** [jmlinhart@cwu.edu](mailto:jmlinhart@cwu.edu)

**Office Hours:** MTh 2:30 - 4:30 pm  
and by appointment.

**Text:** *Mathematics for Computer Science*, by Eric Lehman, F. Thomson Leighton, Albert R. Meyer, available freely on the web at <http://webwork.math.cwu.edu/~montgomery/143/330/2013.pdf> as well as on Canvas.

This syllabus is subject to modification. Students will be notified of changes in class and by email.

Assignments and grades will be posted to Canvas.

**Course Goals:** Math 330 is a course in the mathematics behind computer science concepts and applications. Mastery of college algebra is required for success in this course. In most universities, it is a proofs course. This course follows up on material presented in Math 260 *Sets and Logic*. The material from Math 260 is foundational to our course, a good understanding of it is required for success in this one. Understanding why things work, and being able to explain your logic is as or more important than getting the correct answer. Abstract thinking, good writing skills, logic and (un)common sense are required for success.

This course will cover the following topics:

- I. Induction Proofs (chapter 5, based on chapters 1-4)
- II. Number Theory (chapter 8)
- III. Graph Theory (chapter 11, 9)
- IV. Networks (chapter 10)
- V. Recurrence relations (handout, chapter 6)
- VI. Counting, Cardinality and Combinatorics (Chapter 14)

It is my hope that this course is a step in your preparation for a successful career. The behavior and standards expected of a professional in the work place are what you should aim for in all aspects of work, attendance, and preparation for this course.

## Grades/Exams/Homework

### Grades

Grades will be calculated using the following weighting system:

Weekly Assignments: 35%;

Attendance: 5%;

In class and small assignments: 5%;

Exams: 55% total, 15% for each of two in-class exams and 25% for the final  
and the following scale:

	87 – 89.99 : B+	77 – 79.99 : C+	67 – 69.99 : D+	below 60 : F
93 – 100 : A	83 – 86.99 : B	73 – 76.99 : C	63 – 66.99 : D	
90 – 92.99 : A–	80 – 82.99 : B–	70 – 72.99 : C–	60 – 62.99 : D–	

There are no modifications to this scale after the final exam is taken and final exams are posted. Do your work conscientiously and well during the course of the quarter when it can make a difference.

**Because of privacy rights, I do not discuss grades over email or telephone.**

## Weekly Assignments

We will have a weekly graded written assignment. There will likely be one due the last week of class. Attempt the problems on your own, without using outside resources. If you are stuck, you are welcome to work with other students, use the web or books to gain additional insight, and come ask me for help. However, you must put these other resources away, and write up your own understanding of the solutions in your own words. More information on my policy on working with others and using outside resources is available at <http://www.cwu.edu/math/group-work-and-using-outside-resources>. Copying will result at minimum with a zero on the assignment, and will be reported to the student conduct office. Assignments make up 35% of your final grade, which is more than even the final exam. Getting these done is important, both to your grade and to your understanding of the material.

Instructions for weekly assignments:

1. The main guiding principle is that your paper should be neat, professional, well-organized and thoroughly explained.
2. Put your full name and the assignment number in the upper right hand corner.
3. If you have more than one page, your paper should be stapled.
4. There should not be scratch work or messy scratch-outs on your paper. If you erase, erase thoroughly.
5. Do not hand in paper with raggedy edges. Use scissors to remove these if needed.
6. Do the problems in order, or indicate on the first line what order the problems are in.
7. You must follow all instructions, show all your work, and give all your reasoning in complete sentences for full credit.

## In Class and Small Assignments

In class and small assignments will not be announced in advance; if you miss class the day we do one, you miss the points. All will be graded on a 5 point scale, They will often be graded on a done (5 points), partially done (3 points) and not done (0 points) scale. Some will be graded for correctness. The lowest 2 scores will be dropped to take care of unexpected absences.

## Exams

There will be two in-class exams and a final. The in-class exams will be on Friday, April 24 and Wednesday, May 20. The final exam will be on **Wednesday, June 10 at 8 am**. The final will be cumulative, and **cannot** be taken early. If you miss an exam, you may be allowed to take a make-up. To get a make-up, you must notify me before the exam (if possible) or within 24 hours after the exam. In addition, a make-up is only allowed if you have proof of a compelling reason for having missed the exam. When a make-up exam cannot be taken before I return the corrected exam, I may instead replace that portion of your course grade with your final exam grade. For exams, you will be allowed to bring in an 8.5×11 inch sheet of notes, filled out front and back however you wish. In all cases, you must fill out your own sheet of notes.

## Attendance

I expect you to attend class. Any student who is not in class when attendance is taken is subject to being marked absent for the day. Any student more than 10 minutes late, or who leaves early will be marked absent.

Students are responsible for all material presented in class. If you miss a day, get notes from a classmate.

## Late Policy for Weekly Assignments

This policy does not include in-class and small assignments. I expect you to hold yourself to professional standards in this class. Because even professionals sometimes run into conflicts, I will accept one assignment late without prior approval. I will permit a second assignment to be handed in late if I am notified at least 24 hours before it is due, thus showing me that you are planning ahead. To get credit for a late assignment, it must be turned in to me at the beginning of the next class after the assignment is due or by a date and time I have agreed to in advance, whichever comes first. No assignments will be accepted if a solution key has been posted for that assignment already.

## Academic Integrity

You are expected to do your own work. While you are welcome to use outside resources and consult with others on all work taken home, you are subject to the requirement that what you hand in should, in fact, represent your own understanding of the material and not work copied or memorized from another source. See my [guide to group work and using outside resources](#), <http://www.cwu.edu/math/group-work-and-using-outside-resources>, on the web.

All in-class work and tests are expected to be done without any resources except those explicitly authorized by the instructor. Exams and quizzes are not to be discussed with others who may not yet have taken the exam or quiz or within earshot of anyone who may be taking the exam or quiz at a later time. Note that I have two sections of this course, and so it is entirely possible for someone to be taking an exam at a later time than you are.

If a paper or report is assigned, students are expected to conform to academic standards for citing summarized, paraphrased and quoted work used; if you are not sure what this means, please **ask**.

Cheating will result in at minimum a zero on the assignment, quiz or exam. Cheating will be reported to the office of student conduct. Egregious offenses may result in a failing grade for the course and/or more serious consequences as merited by the situation.

## Students with Disabilities

I am happy to work with students with disabilities. To set up academic adjustments in this class, you should give me a copy of your *Confirmation of Eligibility for Academic Adjustments* from the Disability Support Services Office and come see me in office hours or make an appointment to come see me as soon as possible so we can discuss how the approved adjustments will be implemented in this class. Students without this form should contact the Disability Support Services Office, Bouillon 140 or [dssrecept@cwu.edu](mailto:dssrecept@cwu.edu) or (509) 963-2171.

## Important Dates

April 6 – Last Day for Add/Drop  
April 22 – Faculty Development Day (no class)  
April 24 – Exam 1  
May 20 – Exam 2  
May 21 – Source  
May 25 – Memorial Day (no class)  
June 5 – Last day of classes  
June 10 – Final exam at 8-10 am Lind 204