Discrete Math Spring 2012

Math 163 crn 12018
Monday Wednesday Friday 12:20 - 1:35 W3-54
Professor John Jernigan
215-751-8786
jjernigan@ccp.edu
http://faculty.ccp.edu/faculty/jjernigan
Office: B2-25C 17th and Spring Garden
Text: Keneth Rosen Discrete Mathematics and its Applications

Your syllabus, homework assignments, practice tests and quizzes are posted on the web under the address above. Please use this resource to your benefit. In particular, you may check the quizzes in advance by going to the site. In addition, I will assign worksheets from the site to hand in. This will count as a quiz towards your grade.

There will be three tests and a final exam, as well as a short (5 question) daily quiz selected from the homework exercises. The quizzes are intended as a check on your progress, and will be part of the grade. There will be absolutely no makeup quizzes given.

Grading will be as follows: the total quiz score counts as one test and the final counts as two. Thus the formula for grading will be

$$\frac{\text{test } 1 + \text{test } 2 + \text{test } 3 + \text{total quiz} + 2 \times \text{final}}{6}$$

Please bring your textbook, pencil and paper to each class, as we will often do problems during the class period. You may also need a calculator. *Your phone will not be sufficient and will not be permitted in class.* We will cover a significant amount of material this semester. You are encouraged to read ahead to prepare for class, as well as complete the homework assignments.

My office hours are Monday 10:05 - 11:05, Wednesday and Friday 10:05 - 11:05, 1:40 - 3:40. Please do not hesitate to come to me with any class problems you are having. There is no reason for any one who works hard to do poorly in this class. You are also encouraged to use the Learning Lab in room B2-36.

It is the policy of CCP that no more than six (6) absences are allowed during the course of the semester. Any student missing more than four classes will be automatically dropped from the class. Needless to say, cell phones must be turned off during class. Anyone whose phone rings will be asked to leave and counted absent.

While I am aware that most students take math courses only when required to do so, I sincerely hope that this course will not only be stress free, but also enjoyable and instructive. Much of this depends on you. Please ask questions, give your opinion, and participate!

Course Schedule

1.1	Propositional Logic
1.2	Propositional Equivalences
1.3	Predicates and Quantifiers
1.4	Nested Quantifiers
2.1	Sets
2.2	Set Operations
2.3	Functions
1.5	Introduction to Proofs
1.7	Proof Methods and Strategy
3.4	Ingegers and Division
3.5	Primes and Greatest Common Divisors
Exam 1	
2.4	Seqences and Summation
5.1	The Basics of Counting
4.1	Mathematical Induction
4.2	Strong Induction and Well-Ordering
5.2	The Pigeon Hole Principle
5.3	Permuations and Combinations
5.4	Binomial Coefficients
5.5	Generalized Permutations and Combinations
2.4	Sequences and Summation (again)
Exam 2	
8.1	Relations and Their Properties
8.3	Representing Relations
8.4	Closer of Relations
8.5	Partial Ordering
	Additional Topics
Exam 3	
Review and Final	