VIRGINIA COMMONWEALTH UNIVERSITY
Department of Mathematics & Applied Mathematics
Math 550 – Combinatorics
Spring 2022

Instructor: Dr Larson
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Web page: www.people.vcu.edu/~clarson, and Canvas for grades.
Office Hours: 11:00-12:00 MWF

Prerequisite: Graduate Standing, or Math 350.

Text: Ronald L. Graham, Donald E. Knuth, and Oren Patashnik, *Concrete Mathematics*, Second Edition, 1994. A copy of the (physical) text is on Course Reserve at the library (so you can view that in the library). An electronic version of this text is available on the Library website; try: https://learning-oreilly-com.proxy.library.vcu.edu/library/view/concrete-mathematics-a/9780134389974/ch01.html

Course Description: An Introduction to graph classes, graph invariants, graph algorithms, graph theoretic proof techniques and applications.

Expectations:

- You are expected to attend class, complete homework, and ask questions during class or office hours.
- Communicating mathematics is integral to the creation and transmission of mathematics. You should give significant thought as to how to explain your homework solutions to the class.
- I encourage you to work with others on homework problems, however, any assignments to be turned in must be written up on your own. If you work with others, you must write who you worked with on your assignment.
- Please write neatly on all assignments to be graded; exceptionally messy work may not be graded.
- Only selected homework problems will be graded; other problems will be graded for completion.
- **There are no make-ups on in-class assignments.** I will drop your three lowest in-class assignments, assuming that you couldn't come to class for excusable reasons.
- Make up tests will be considered under exceptional circumstances: if you miss a test and want to be considered for a make-up, you *must* contact me immediately.

Tests and Determination of Grades:

There will be 2 equally weighted tests. Here is the *tentative* schedule:

Test #1, Mon. Feb. 28
Test #2, Mon., May 9, 8:00-10:50

• The tests are closed-book and closed-notes.
• The tests will be based *on* the in-class assignments and assigned homework.
• Use of calculators or other computing technology is not allowed on the tests.
• Tests are written under the assumption that you are studying the material at least 6 hours per week outside of class.

Your final average will be computed as follows:

    Test 1, 2:   20% each
    Homework: 25%
    In-class assignments: 35%

Grade Scale: The 10-point scale: 90-100 A, 80-89 B, etc.

Important Dates to Know:

- Last day to withdraw is Fri., Mar. 25
- Spring Break (no classes), Mar. 6-13.
- Classes end on Tues., May 3

VCU Syllabus Statement: Students should visit **http://go.vcu.edu/syllabus** and review **all** syllabus statement information. The full university syllabus statement includes information on safety, registration, the VCU Honor Code, student conduct, withdrawal and more.