

VIRGINIA COMMONWEALTH UNIVERSITY
Department of Mathematics and Applied Mathematics
Math 556 (Section 001) – Graph Theory (3 credit hrs)
Fall 2024

Instructor: Dr Larson
Office: 4106 Harris Hall
Email Address: clarson@vcu.edu
Web page: mathlum.github.io and Canvas for grades.
Classroom and Meeting: 5167 Harris, 2:00-3:15 TTh
Office Hours: 11:00-12:30 TTh

Prerequisite(s): Prerequisites: MATH 211 or MATH 300; MATH 310; and MATH 356, each with a minimum grade of C; or permission of instructor. Or graduate standing.

Text: *none*

VCU Bulletin description: Introduction to graph classes, graph invariants, graph algorithms, graph theoretic proof techniques and applications.

Learning Goals: Our principal aim is to learn fundamental graph concepts, theorems about them, and to understand *good characterizations*, their computational and theoretical context, and significance.

Attendance: There is no attendance policy per se, but there will be homework and in-class assignments that are due.

Course Schedule: This course is based on a set of daily instructor-produced worksheets. We will do one of these in class every class day. It is generally impossible to finish these completely without in-class help and discussion. Tests are based these daily classroom worksheets and assigned homework. The pace will not be predetermined (but will depend on how things go in class from day to day).

Goals and Expectations:

- You are expected to attend class, complete homework, and ask questions during class or office hours.
- When presenting your work, I expect you to show all significant steps that are used to complete each problem. In cases where work is missing, you will not be given full credit.
- 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 two 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 two tests. Here is the *tentative* schedule:

Test 1, Thurs., Oct. 17

Test 2, Thurs., Dec. 12, 12:30-3:20

- The tests are closed-book and closed-notes.
- The tests will be *closely based on* the in-class assignments and assigned homework.
- Tests are written under the assumption that you are studying the material at least 6 hours per week outside of class.

Grade weights:

Your final average will be computed as follows:

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

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

Important Dates to Know:

- Last day to withdraw is Fri., Oct. 25
- Classes end on Friday, Dec. 6
- Reading Day, Wed., May 1

VCU Syllabus Information:

Students should visit 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.

VCU Libraries:

Use [VCU Libraries](#) to find and access library resources, spaces, technology and services that support and enhance all learning opportunities at the university.