

VIRGINIA COMMONWEALTH UNIVERSITY
Department of Mathematics

I. Required Syllabus Information

A. Course prefix and number, section number, and title

CRN:34860

Section Number: 001

Subject: Mathematics & Appl Mathematics

Course Number: 409

Title: GENERAL TOPOLOGY

B. Semester term and credit hours

Associated Term: Fall 2022

Credit Hours: 3

C. Class meeting days/times/location

Class meeting days/times: MWF 12:00 PM – 12:50 PM

Location: Monroe Park Campus | Temple Building | Room 2224

D. Instructor name, contact information, and office hours

Instructor name: Allison H. Moore

Contact information: mooreal4@vcu.edu

Office hours: W 1-2, F 9-10 Harris Hall 4149 (tentative)

E. University course description (required to be verbatim from the University Bulletin)

MATH 409 General Topology Semester course; 3 lecture hours. 3 credits. Prerequisite: MATH 407 with a minimum grade of C. Foundations and fundamental concepts of point-set topology.

Topological spaces, continuity, convergence, connected sets, compactness, product spaces, quotient spaces, function spaces, separation properties.

F. Course prerequisites, if any

Math 407 (Undergraduate) with grade of at least C

G. Student learning outcomes

As an introductory course in topology, the primary outcome will be to develop familiarity with point-set topology and basic geometric and algebraic topology. Students will develop knowledge of topological spaces and learn techniques for calculating topological invariants. Students will gain experience writing clear and concise mathematical proofs and develop mathematical reading comprehension skills.

H. Required texts and/or course materials

1. "Basic Topology" by Armstrong. ISBN 0387908390. REQUIRED.
2. "Topology Without Tears" by Morris. Free online, no ISBN. OPTIONAL.

I. Course schedule

The schedule is subject to change, as is appropriate for the progression of the class. Homework and quiz dates, in particular, may vary but announcements regarding due dates will be made regularly via Canvas. Lectures and assessments will be held 9/22/2022 – 12/16/2022.

Quiz, Exam and Project Schedule:

• Quiz 1	September 12	12:00 – 12:50 PM via Canvas
• Quiz 2	October 3	12:00 – 12:50 PM in class
• Midterm	October 19	12:00 – 12:50 PM TBD
• Quiz 3	November 9	12:00 – 12:50 PM in class
• Quiz 4	December 5	12:00 – 12:50 PM in class
• Term project draft	December 9	11:59 PM via Canvas
• Term project	December 16	11:59 PM via Canvas

Homework: Homework will alternate with quizzes. Tentative due date schedule:

• Homework 1	September 9	11:59 PM via Canvas
• Homework 2	September 26	11:59 PM via Canvas
• Homework 3	October 14	11:59 PM via Canvas
• Homework 4	November 2	11:59 PM via Canvas
• Homework 5	November 18	11:59 PM via Canvas
• Homework 6	December 12	11:59 PM via Canvas

See section II-Q below for additional information about quiz, exam and homework policies.

J. Final exam date and time (if applicable)

No final exam. A term project will be due on Friday, December 16th during the finals period.

K. Grading scale

90-100 A, 80-89 B, 70-79 C, 60-69 D, below 60 F. Instructor reserves the right to curve.

L. Grade categories and weights

Quizzes: 30%

Homework: 30% (lowest dropped)

Midterm: 20%

Term project: 10%

Attendance and participation: 10%

M. Link to the VCU Syllabus Policy Statements on the Provost's Website

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.

N. The following statement and link:

Use VCU Libraries to find and access library resources, spaces, technology and services that support and enhance all learning opportunities at the university. (<https://www.library.vcu.edu/>)

II. Additional Syllabus Information

O. Hybrid Synchronous Modality

VCU defines the hybrid synchronous modality as follows: A minimum of 30% of the course time is completed by the instructor and student physically sharing the same physical space/location at the same time. The remainder of the course time is completed in an online/remote environment (i.e., learning management system). Required to take place on a specific day and time.

Hybrid synchronous *does not mean* that you can take the class virtually while other students attend in person. This is primarily an in-person class with extra material support online. Lectures and class activities will mainly be held in-person, in our classroom MWF and attendance is required. Homework assignments will be conducted online, through Canvas. Quizzes and the midterm exam will be held in-person, barring any further complications from the pandemic. On occasion, lectures or quizzes may need to be conducted over Zoom/Canvas; when this happens, I will notify the class through Canvas.

P. Zoom and Canvas

For virtual meetings, we will use the following Zoom link:

<https://vcu.zoom.us/j/94137950746>

Meeting ID: 941 3795 0746

You will use Canvas to download and submit homework, to take some of the quizzes, and to submit your draft and final term papers.

Q. Homework, Quiz and Exam Policy

Homework will be due on Fridays, approximately every other week. Homework assignments will be posted to Canvas in advance. You will submit your completed assignments to Canvas in PDF format. Students in this class are encouraged to work with each other on homework.

All quizzes will be held during our 12:00—12:50 meetings and will be timed. For the most part, quizzes will be in-person, although one or two of the quizzes are planned to be conducted through Canvas (please consult schedule). All quizzes are open book and open notes, but you are not allowed to consult other people or internet-based resources. *Pending the outcomes of quiz performances, the instructor may choose to offer the entire class the opportunity to retake a quiz.*

One midterm exam is scheduled. The exam will be a timed take-home exam. It will tentatively be open book, and open notes but strictly limited to these resources.

R. Academic Dishonesty (cheating):

- You are expected to uphold the honor system at all times.
- If you are suspected of cheating, the matter will be sent to the honor council. This may result in a zero on the assignment, an F in the class, or suspension from the University.
- Examples of cheating include, but are not limited to, the following:
 - copying someone else's project or allowing another student to copy your work

- copying answers to problems from websites like Stack Exchange
- paying a tutor to solve a problem on your homework or having someone else do your homework
- using sites like Chegg, Quora, Slader, Coursehero or social media to solicit for answers, regardless of whether it is free or paid
- gaining knowledge from looking at another student's quiz/test
- giving another student answers (or letting them copy) on a quiz/test
- discussing a quiz/test with someone who has already taken it or asking for information on a quiz/test from someone who has already taken it

Working together with your classmates on homework assignments in a collaborative manner is *not considered cheating*. I encourage students in this class to work together on homework assignments.

S. Our shared learning environment

Everyone should know that I am grateful for your presence and appreciate your input in our in-person and online classes. You are welcome here, and our diverse backgrounds make us stronger together. I am dedicated to providing a welcoming and inclusive environment for all students, independent of your immigration status, country of origin and/or citizenship, race, ethnicity, religious affiliation, gender/sex, gender identity, sexual orientation, age, ability or disability, socioeconomic status, or perspective. Thank you for joining my class and bringing your unique experience and background to our intellectual community!

T. Students with disabilities:

VCU is committed to ensuring that all students maintain equal access to all aspects of the university, including educational experiences through the provision of reasonable accommodations and academic adjustments. In addition to being a requirement under Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act, this speaks directly to VCU's mission of inclusion, equity, and access. To receive accommodations or other disability-related supports, students must register with the Office of Student Accessibility and Educational Opportunity on the Monroe Park Campus (828-2253) or the Division for Academic Success on the MCV campus (828-9782). Students and faculty can visit the [Student Accessibility and Educational Opportunity website](#) and/or the [Division for Academic Success website](#) for additional information. Once students have completed the registration process, they will be provided with a letter of accommodation. They should provide a copy to their instructor(s) and attempt to schedule a meeting to discuss the implementation of accommodations as early in the semester as possible.