Virginia Commonwealth University
Department of Mathematics and Applied Mathematics
Introduction to Mathematical Reasoning
Math 300 - Section 901
Course Syllabus
Meeting Times: TR 4-5:15pm
Location: Harris Hall
                     Room 4145

Contact Information
Instructor: Brent Cody
Email: bmcody@vcu.edu
Office: Harris Hall, Room 4110
Office Hours: T 12:00 noon - 12:50 pm and R 11 - 11:50 am

About the Course
This course will be focused on writing mathematical proofs and will likely be a turning point in your mathematical education. In your previous mathematics courses you were primarily concerned with finding solutions to computational problems. This course is more theoretical and centers around the concepts of *logic* and *proof*. Roughly speaking, for mathematicians, a **proof** is a rigorous argument for a mathematical statement. Put another way: this course is concerned with the methods of verifying (proving) whether mathematical statements are true or false. This demands lots of thought, work and writing from you.

The ability to write precise, logically sound, mathematical proofs translates into many other fields such as computer science, physics and engineering. Throughout the course you will develop the tools and skills necessary to move on to more advanced courses where the ability to write mathematical proofs and understand complex algorithms will be assumed.

Textbook

Book of Proof (Second Edition) by Richard Hammack

- A pdf of the entire textbook is available at:
    http://www.people.vcu.edu/~rhammack/BookOfProof/index.html
- You can order a paperback copy for $15.75 from Amazon.
    http://www.amazon.com/Book-Proof-Richard-Hammack/dp/0989472108

Additional Course Material:

- You can find **practice exams** on Richard Hammack's website:
    http://www.people.vcu.edu/~rhammack/math300/tests/index.html.

Grading
The assignments for the course are broken up into four categories.

(1) Homework: There will be weekly graded homework assignments. Many of the problems will require you to write mathematical proofs in complete sentences.
(2) Quizzes: Weekly quizzes will be given on material covered by the previous homework assignments.
(3) Tests: There will be two midterm exams before the final exam period.
(4) Final Exam: The final exam will be cumulative and will take place on

Tuesday, December 13, 4:00 pm – 6:50 pm

in our regular classroom, Harris Hall 4145.

The usual 10-point grading scale will be used to average course grades (90–100 is an A, 80–89 is a B, etc.). Here is a chart indicating the weights of assignments.

Homework	12%
Quizzes	20%
Tests	40% (20% each)
Final Exam	28%
Total	100%

Grading Policies:

- I will drop your lowest two quiz grades and your lowest two homework grades.
- I will replace your lowest test score with your score on the final exam if it helps your grade.
- **Make-up policy**: Under normal circumstances I do not make a distinction between excused absences and unexcused absences. I do not give make-up tests or quizzes, rather I drop your lowest quiz grades (as outlined above) and replace your lowest test score with the final. If you miss the final exam for a legitimate reason (i.e. a documented illness or emergency) then I can give you a grade of incomplete (I) for the course, and you will need to make up the missed exam.

Course Policies

- Missing more than 5 classes may result in an automatic F.
- No cheating on quizzes, tests or exams will be tolerated. If you are caught cheating on an assignment you will receive a 0 on that assignment.

  All cellphones and electronic devices must be put away during quizzes, tests and exams. The use of a cellphone during quizzes, tests and exams will be considered cheating unless you ask me first.

Tutoring

There is tutoring available week days at the VCU Math Help Center in Harris Hall 2126 (http://math.vcu.edu/helpcenter/) and at the campus learning center (http://clc.vcu.edu/).

Important Dates

Friday, November 4 — Last day to withdraw from a course with a mark of "W" — both campuses (except for courses not scheduled for the full semester).

For other important dates visit: http://academiccalendars.vcu.edu/ac_fullViewAll.asp?term=Fall+2016.

University Wide Policies

Please read about additional university wide policies at: http://go.vcu.edu/syllabus.

Students with Disabilities

Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, as amended, require that VCU provide "academic adjustments" or "reasonable accommodations" to any student who has a physical or mental impairment that substantially limits a major life activity. To receive accommodations, students must register with the Disability Support Services Office on the Monroe Park Campus (828-2253) or the Division for Academic Success on the MCV campus (828-9782). Please also visit the Disability Support Services website (https://students.vcu.edu/dss/) and/or the Division for Academic Success website (http://das.vcu.edu/) for additional information.

Once students have completed the DSS registration process, they should schedule a meeting with their instructor (s) and provide their instructor (s) with an official DSS accommodation letter.