BOB JONES UNIVERSITY
BUILD FAITH. CHALLENGE POTENTIAL. FOLLOW CHRIST.

College of Arts and Science
Division of Mathematical Sciences

Ma 299 ~ Mathematical Proofs

Spring Semester 2021 – 2022

Instructor:	Dr. Melissa Gardenghi
Office:	Alumni 38
Office Hours:	Daily by appointment (see below to schedule)
Preferred Method of Communication:	MS Teams; personal correspondence by personal chat and general course/content related questions in the course general channel
Email:	mgardeng@bju.edu
Course Website:	https://math.bju.edu/ma299/

Course Description:

A transition course between lower-level mathematics courses and more abstract/theoretical upper-level courses in which mathematical proofs are essential. Required of students before taking 400-level math courses unless waived by passing the Mathematical Proofs placement test.

Textbook/Calculator/Software:

Your calculus book may be used/referred to throughout the course. Necessary course resources are available on the course website.

Course Context/Goals: This course explicitly supports the first and second Division of Mathematical Sciences goals.

CG1: Develop the student's understanding of the key techniques used in mathematical/logical proofs
CG2: Develop the student's ability to independently prove mathematical statements

Course Objectives: The student will be able to

1. Identify the major types of proofs
2. Develop the key components of original proofs independently

Course Requirements and Evaluation: The course grade will consist of

1. In-class assignments (not graded) – each week we will develop proof skills by working on an in-class proof (together or in small groups). Independent proof skills will be developed through the weekly homework assignments.
2. Two tests: midterm (March 3) worth 100 points and final (May 2) worth 300 points.
3. Weekly homework assignment (3 proof analysis assignments, 22 original proofs), each analysis assignment is worth 20 points, and each original proof is worth 10 points each. The lowest 4 original proof grades will be dropped.

Grading Scale: Standard 10 point scale, with 650 points possible in the course.

Office Hour Appointments:

Office hour appointments can be made using the Calendly site.

Instructions for using the site: https://math.bju.edu/media/bju-math-division/bju-math-department/melissa-gardenghi/Office-Hours-Procedure.pdf.

A direct link to Calendly for making appointments with Dr. Gardenghi: https://calendly.com/mgardeng/20min

General Policies:

1. Compliance with student handbook policies is expected during class. The classroom is to be a professional environment. That means your attention is expected to be on course related material, and you are expected to positively contribute to the class. I reserve the right to ask you to leave class should your attention be elsewhere (sleeping, surfing the internet, working on assignments for another class, etc.).
2. Work may always be completed early (see your professor if you wish to take a test early).
3. BJU attendance policy is in effect (see https://home.bju.edu/bju-policies/ for details).

   Scheduled tests should be taken before your *planned absence*; please contact your professor to make arrangements for doing so. You are personally responsible to get notes from your classmates and discuss the missed material with them. You should not expect your professor to privately re-teach you the material you missed.

   Missing an in-class test because you feel you are not prepared to take it is **not** acceptable. Work missed for this reason will not be made up and you will receive a zero on the assignment.

   For *absences due to incapacitating illness or emergency*, you should contact the instructor as soon as you realize you will not be in class to make arrangements for making up any missed work. In-class tests will be made up without penalty for the first occurrence. Each subsequent time a test is missed because of incapacitating illness or emergency, an additional 10 percent grade penalty for that test will be incurred.

   Weekly assignments should be submitted either in class or to the professor's credenza prior to class. Any assignment not submitted by class time will be considered late and will receive a late penalty of at least 10% depending on the lateness of the assignment. Late penalties are awarded even if you miss class, however, exceptions will be made for true emergencies. If you are absent from class, you can retrieve the current assignment from the course webpage.
4. See the Assignment Integrity Expectations (available on the course website) for guidelines for getting help. Exams are to be worked with no assistance.

   University academic integrity policy is in effect (see https://home.bju.edu/bju-policies/ for details).

   Cheating is defined as any use of unauthorized helps, and plagiarism is defined as taking someone else's words and/or ideas and claiming them as your own.

   Doing your own work brings glory to God. The claiming of someone else's work as your own is cheating and is a sin. All work done for this class needs to be your own. If information is taken from other sources (which is at times appropriate), it always needs to be referenced and credit given where it is due. Use the documentation page found on the course website for each original proof. Solutions found on the internet are not to be simply copied. See Assignment Integrity Expectations (available on the course website) for specific details.

   In-Class Tests: In today's age of technology, cheating includes getting unapproved help from any source. The presence of any unauthorized material on your desk or open on your computer/tablet/phone (including but not limited to notes, email, texting, chat windows, help websites, etc.) while taking a test, will be construed as cheating and will be dealt with as such. Cheating on a test will be submitted to the Academic Integrity Committee.