MAT237: Term test 2 Info
Tuesday July 23th, 6:10 - 7:40, MP 202

- Please arrive promptly as there will not be extensions for lateness. Please bring your Student ID card, put your coats and backpacks at the front or back of the classroom, and have only your pencils, erasers, and Student ID with you at your chair. No Calculators.

- As per the course outline, absences will only be excused for medical reasons with a valid medical note (a copy of which can be found on blackboard under Syllabus) provided either electronically to Xiao Liu, or in person by the end of the lectures on Thursday, July 25th. Failure to do so will result in a mark of zero. A make up test 1 will be scheduled, likely on Friday, July 26th, and will be different from the original test.

- Test 2 will cover sections 3.1, 3.2, 3.3, 3.4, 4.1, 4.2 4.3, 4.4, 4.5 and will be of the same format as test 1. The total marks are 85, which include 5 bonus marks. There are about 40 marks related to Chapter 3. Please consult the quiz preparation documents for the specific topics in each category. since 4.2, 4.3, 4.4, and 4.5 are not covered by the quiz, here is the list of material to prepare from 4.2 to 4.5.

    A: Definitions and statements of theorems:
    - §4.2: Double integral, characteristic function, zero content, The Mean Value theorem for integrals.
    - §4.3: Fubini's theorem.
    - §4.4: Memorize and be able to apply formulas 4.38 and 4.42, Spherical and Cylindrical coordinates.
    - §4.5: The statements of theorems 4.46 and 4.4.

    B: Examples and applications:
    - §4.2: Demonstrating a set in zero content (directly or using theorem 4.19), calculating a double (or triple integral)
    - §4.3: Examples 1-4, Exercises 1-9, 13
    - §4.4: Applying formulas 4.38 and 4.42, change of variable to simplify an integrals. examples 1-4, exorcises 1,2,4,6,10-15.
    - §4.5: Examples 1,2,3, exercises 1-5.

    C: Proofs:
    - §4.2: Proofs of 4.17, 4.18, 4.19, 4.20, 4.21, 4.22, 4.23, 4.24, 4.25 (some of these proofs are presented in the text book solutions.)
    - §4.3: No proofs.
    - §4.4: Proofs of 1,2,3, page 180.
    - §4.5: Proof of 4.46.