

## MAT237: Final Exam Info

- 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.
- Final exam is accumulative, but substantially heavier on the latest material (4.2 - 5.8). The material tested from the past appear in the context of the new material, so it is possible to think that the questions are entirely from the new material: please find traces of the past in the recent material and learn them well.
- There are 120 marks in total, which includes 20 bonus marks.  
Distribution of marks: Chapter 1-2 (35 marks), Chapter 3 (15 marks), Sections 4.1-4.2 (17 marks), Sections 4.3-5.8 (53 marks).
- Please consult the quiz preparation documents for the specific topics in each category. Since Sections 5.7 and 5.8 are not covered by the quiz, here is a list of material to prepare from Sections 5.7 and 5.8.
  - §5.7: Theorem 5.52 (no proof) Corollary 5.56 (with proof), Example 1,2, and Exercises 1-7.
  - §5.8: Theorems 5.59 and 5.60 (with proof), Definition of conservative, Theorem 5.62 and 5.63 (both no proof). Examples 1-4, and Exercises 1-2.
- Here is a list of proofs:
  - §3.1: Corollary 3.3.
  - §3.2: Theorem 3.11.
  - §3.3: Theorem 3.15.
  - §3.4: No proofs.
  - §4.1: Lemma 4.5. Theorems 4.10, 4.12.
  - §4.2: Theorem 4.24.
  - §4.3: No proofs.
  - §4.4: No proofs.
  - §4.5: Theorem 4.46.
  - §5.1: Proposition 5.8.
  - §5.2: Corollary 5.17.
  - §5.3: No proofs.
  - §5.4: Exercise 4.
  - §5.5: Corollary 5.37.
  - §5.7: Corollary 5.56.
  - §5.8: Theorem 5.60.

- Finally, here is a list of exclusions. We have skipped:
  - §3.3: Higher dimensions,
  - §3.5: All of section 3.5,
  - §4.2: Inner and outer area and Higher dimensions,
  - §4.3: Moment of inertia,
  - §4.4: Proof of theorem 4.37,
  - §4.5: Theorems 4.52 and 4.53,
  - §4.6: All of section 4.6,
  - §4.7: All of section 4.7,
  - §4.8: All of section 4.8,
  - §5.6: All of section 5.6,
  - §5.8: Pages 265, 266.

Good Luck!