

MATH 5525: Final Examination Guide

Date. The date of the *take-home* final examination is Monday, May 11, 2020. The test will be posted on Canvas by 8 am of Monday, May 11. The completed test should be uploaded back into canvas by midnight of the same day. Please, post only single .pdf files.

Topics to be covered in the final exam. They include the following sections of the textbook:

- 2.1–2.4.
- 3.1–3.4.
- 4.1–4.4 (Proofs of the Poincaré-Bendixon theory are not required).
- 5.1–5.4.
- 6.1, 6.2 (no proofs required), 6.3.
- 7.1–7.3.
- 8.1–8.4.
- 14.4–14.5.

In addition, the exam will also cover topics of nonlinear systems such as *invariant sets*, *nullclines* and also the *SIR and SIRS models*. These topics will be treated at the level of the examples worked out in class, in assignments and in the midterm tests.

Grading policy. The grade of the course will be based upon a weighted average of homeworks and examinations:

Homework: 25 % of the final grade.

Midterm Test 1 (Friday, February 21): 20 %.

Midterm Test 2 (Monday, March 30): 20 %.

Final examination (Comprehensive. Monday, May 11): 35%.

Final Examination policies.

- The final examination is compulsory. Failure to take it will automatically result in the grade 'F' in the course.
- Books, notes and computers are allowed during the exam.
- The final exam has to be fully completed by the student. Students are not allowed to receive help from anyone.
- All University of Minnesota policies regarding take-home and final examinations apply to the course.