

MATH 2074–003 — DYNAMICAL SYSTEMS — SPRING 2016

Monday, Wednesday, Friday at 11:15 a.m.–12:10 p.m. in Room 125 of 60 W. Charlton

INSTRUCTOR: Roger Chalkley; Office Location: Room 4504 of French Hall West

OFFICE HOURS: Monday, Wednesday, and Friday at 1:30–2:30 p.m.

E-mail: roger.chalkley@uc.edu

PREREQUISITES: A minimum of C^- in MATH 1062 (Calculus II) or equivalent.

TEXT: *Introduction to Differential Equations with Dynamical Systems* by Stephen L. Campbell and Richard Haberman (Princeton University Press, 2008, ISBN: 978-0-691-12474-2).

COURSE DESCRIPTION: The subject is an introduction to ordinary differential equations and dynamical systems. It involves a study of first-order and second-order differential equations, Laplace transforms, as well as the qualitative behaviour of two-dimensional dynamical systems through phase-plane analysis.

EXAMINATIONS AND QUIZZES: There are to be two 55-minute examinations, four quizzes, and a two-hour final examination. Each 55-minute examination will be graded on a basis of 100 points and count as 20% of your grade. Each quiz will be graded on a basis of 25 points and count as 5% of your grade. The final examination will be graded on a basis of 100 points and, with double-weighting, will count as 40% of your grade. Averages from 90 upward are certainly A's. Averages from 80 upward are at least B's. Averages from 70 upward are at least C's. Averages from 60 upward are at least D's, etc.

TEST DATES:

- Quiz–1 will be given in the class of January 22 (a Friday).
- Examination–1 will be given in the class of February 12 (a Friday).
- Quiz–2 will be given in the class of February 26 (a Friday).
- Examination–2 will be given in the class of March 11 (a Friday).
- Quiz–3 will be given in the class of March 18 (a Friday).
- Quiz–4 will be given in the class of April 15 (a Friday).
- The **Final Examination** is to be in our classroom on Monday, April 25 at 9:45–11:45 a.m.

CALCULATOR POLICY: No calculators of any kind may be used during examinations or quizzes.

ATTACHED SCHEDULE OF CLASSES WITH SUGGESTED PRACTICE PROBLEMS: Questions on Examinations and Quizzes will frequently be similar to the problems listed on the attached Course Schedule. Thus, the ability to present correct solutions to those problems is highly desirable.

ATTENDANCE: Students who miss a class are responsible for learning the material covered without using office-hour consultations or E-mail communications for that purpose.

MASS CENTER: Help may be available at the Mathematics and Science Support Center. For location, hours, and various tutoring options, consult the MASS Center website :

www.uc.edu/aess/lac/masscenter.html

VARIOUS DATES MENTIONED FOR CONVENIENCE :

- Monday, January 11: first day of class
- Monday, January 18: Dr. Martin Luther King Jr.'s Birthday
- Monday, March 21 through Friday, March 25: Spring Break
- Friday, April 22: last day of class
- Monday, April 25: Final Examination at 9:45–11:45 a.m.