



MATH V23 • COURSE INFORMATION

The Course. 3 units (3 hrs lecture weekly). This is a course in differential equations; it assumes a background in the basics of differentiation and integration as well as sequences and series. It covers types of ordinary differential equations; modeling; solution techniques; applications; higher order differential equations; series solutions; Laplace transforms; systems of ordinary differential equations; and numerical methods. By the end of the course, the successful student will be able to identify and solve first-order and selected higher-order differential equations; determine Laplace and inverse Laplace transforms; solve linear systems; analyze mathematical models; apply existence and uniqueness theorems; and find power series solutions to differential equations. The course includes instruction in proper notation, proofs, computer algebra systems, and emphasizes the importance of acquiring good study skills.

Class Meetings. Lecture: Monday and Wednesday 4:00–5:15 p.m. in room SCI-352

Please turn off (or set to "vibrate" mode) all mobile phones and pagers, so as not to interrupt the class.

Homework Club. Please visit during any scheduled homework club hours (note locations below), or make an appointment.

- Tutorial Center (first floor of LRC across the hall from the BEACH); Monday, Tuesday, and Wednesday, 5:30–6:30 p.m.

These times may change, especially early in the term. Schedule updates are posted on the Web at <http://academic.venturacollege.edu/mbowen/courses/2018haru/classked.pdf>. Contact the instructor, Michael Bowen, by telephone (805-289-6256) or by e-mail at mbowen@vcccd.edu.

Prerequisites. Math V21C or equivalent. Students should know differentiate (including partial derivatives), integrate, and create and test the convergence of power series representations for functions. Good reading and writing skills are helpful; homework, quizzes, and the final examination may include word problems and/or essay questions.

Course Materials.

- This text is required: D.G. Zill, *A First Course in Differential Equations with Modeling Applications*, Eleventh Edition (ISBN 978-1337761000 or 978-1305965720). Math V23 lectures largely follow the material in chapters 1 through 9 of this text, which we shall cover in whole or in part as indicated in the homework assignments.
- Students should purchase or borrow a good calculator. The calculator must be capable of evaluating powers, roots, exponentials, and logarithms. If you already have a calculator but are not sure whether it has the necessary capabilities, please bring it and ask the instructor. *The Department of Mathematics recommends that students in this course acquire a graphing calculator, such as the TI-82, TI-83, or TI-84; mobile-phone calculators are not permitted during exams.*
- The Web start page for this course is <http://academic.venturacollege.edu/mbowen/courses/2018haru/m23.shtml>.
- Student Learning Outcomes (SLOs) and Core Competencies for this course are available on the VC math department's web site. The URL for SLOs is <http://www.venturacollege.edu/sites/default/files/files/college-information/student-learning-outcomes/course-student-learning-outcomes/math.pdf>. The URL for competencies is http://www.venturacollege.edu/assets/pdf/core_competencies/corecomps_math.pdf.

Grading and Drop Policies. Please see the accompanying **COURSE REQUIREMENTS AND GRADING** document, which is expressly incorporated and made a part of this **COURSE INFORMATION** document by reference. It is the student's responsibility to remember drop deadlines and regulations. The various drop deadlines for this semester are listed under **IMPORTANT DATES** below.

IMPORTANT DATES

Student holidays	...	15 January; 16–19 February; 26–30 March; and 26–27 April 2018
Last day to add a class	...	Friday 19 January 2018
Last day for full refunds	...	Friday 19 January 2018
Drop deadline (no "W")	...	Friday 26 January 2018
Credit/No Credit request deadline	...	Friday 9 February 2018
Drop deadline (no "F")	...	Friday 20 April 2018
Final Examination	...	Room SCI-352, 2:45–4:45 p.m., Wednesday 16 May 2018

All **COURSE INFORMATION** is subject to change without notice. Please refer questions directly to your instructor.