

Course Information for Fall 2023
Differential Equations for Honors Students
MAP 2302, Section 1G33
Five-digit course number 14765

Textbook: Nagel, Saff, Snider: Fundamentals of Differential Equations. Ninth edition.

Location and Time of Classes: 101 Keene - Flint Hall, MWF 8th period.

Evaluation: There will be six in-class tests (50 minutes), and one final exam. Each test will contribute 12 percent to the final grade, while each of the two half-final exams will contribute 14 percent. Partial credit is given when the student attempted to solve the problem in a way that could lead to a correct solution. *Just because you wrote something correct, you will not necessarily get partial credit.* A solution that is numerically correct, but does not provide adequate explanation of the relevant facts will get low credit. A partial solution that honestly admits that it is not complete is better received than one that falsely claims that it is.

Grading: Eighty-five percent of the total score is required for an A, seventy-five percent for a B, sixty-five for a C, and fifty-five for a D. Fractional grades are given accordingly.

Tests: They will be on September 13, September 29, October 16, November 3, November 17, and December 6. Unless announced otherwise, only a pen or pencil is allowed.

Final Exam: Monday, December 11, 12:30pm to 2:30 pm, in 101 Keene-Flint Hall.

Instructor: Miklós Bóna, 440 Little Hall, bona@ufl.edu. Office hours are held Wednesday 9th period, and Friday, 6th period. This is subject to change. My website is at

<http://people.clas.ufl.edu/bona/> .

Content: MAP 2302 is a 3 credit course which gives the basic elementary knowledge necessary for understanding, applying, and solving differential equations of the most usual types (Chapters 1, 2, 4, 6, 7 and 8 of the text). This course is designed to serve students in engineering, physics, mathematics and related areas. It is taught in lecture format in small sections, with grading, computer usage and laboratory projects instructor dependent.

The course starts with an introduction to the concept of differential equations. It covers first order methods, including separability, exactness, integrating factors, first order linear equations, Bernoulli's equations, and second order equations reducible to first order ones.

The course continues with higher order methods for constant coefficient linear equations including particular solutions and general solutions by the method of undetermined coefficients. Applications include vibrating springs, resonance, and electrical circuits.

The course covers Laplace transform methods, including properties of the Laplace transform, solution of initial value problems, and applications.

The course also covers series solutions of differential equations, including the study of ordinary and singular points, and the method of Frobenius.

Students with disabilities Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.

Attendance policy Students are expected to attend class regularly. The UF policy on attendance is here:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Honor Code UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code."

On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obliged to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor of this class.

Further Information on current UF grading policies for assigning grade points

See <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

Student Evaluations Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.