



Sergei S. Pilyugin

Courses for Fall 2016


MAP 4305 Intermediate Diff. Equations

◦ MAA 5104/4102 Advanced Calculus (E and PS) 1

Publications

Research

Schedule

Related Links

- ▶ CLAS IT
- ▶ College of Liberal Arts and Sciences
- ▶ University of Florida

MAP 4305 Intermediate Diff. Equations

MAP 4305 & Intermediate Diff. Equations (Section 2E00)

 Instructor: Sergei S. Pilyugin http://people.clas.ufl.edu/pilyugin/courses/maa5104_f2016/

- **Announcements:** This page is under construction. All relevant announcements will be posted here.
- **Prerequisites:** MAP 2302 (Differential Equations 1) or equivalent.
- **Time and Room:** MWF 3 (9:35 a.m. – 10:25 a.m.), FAC 120.
- **Final Exam Time and Room:** To be announced.
- **Literature:** R. K. Nagle, E. B. Saff, and A. D. Snider, *Fundamentals of Differential Equations*, 8th Ed., Pearson Education, ISBN-10: 0-321-74773-9.
- **Critical dates:** Aug. 22 (classes begin), Dec. 7 (classes end). Midterms: M1 09/16, M2 10/07, M3 11/09.
- **Holidays:** Sep. 05 (Labor Day), Oct. 14-15 Homecoming, Nov. 11 (Veterans Day), Nov. 23-26 (Thanksgiving).
- **Office Hours:** MWF4 (10:40-11:30 a.m.) in LIT 458, or by appointment. Please, call me at 352- 294-2326 or use e-mail: pilyugin@ufl.edu for communication. For more details, see my schedule.
- **Description and Objectives of the Course:**

This course is a continuation of MAP 2302. It covers the power series method, systems of linear ODEs, and the introduction to PDEs.

Weekly Schedule:

- W1: Power series method revisited;
- W2: Equations with analytic coefficients;
- W3: Singular equations, method of Frobenius;
- W4: Special Functions;
- W5: Review of matrices, linear algebra;
- W6: Linear systems of ODEs, variation of parameters;
- W7: Systems with constant coefficients, the method of Euler;
- W8: The matrix exponential;
- W9: Linear PDEs, separation of variables;
- W10: Fourier series;
- W11: Heat equation;
- W12: Wave equation;
- W13: Laplace's equation;
- W14: Examples and applications.

Grading System:

Exams: 3 midterms (30 points each, best 2 count); 1 (cumulative) final (40 points). Three midterms based on homework assignments. To summarize, 60 points for Midterms, 40 points for Final Exam, and 100 points altogether. The resulting score determines the letter grade according to the following table

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D
Score	100 – 93	92 – 88	87 – 83	82 – 74	73 – 69	68 – 64	63 – 59	58 – 54	53 – 49	48 – 40

Course policies:

- **Closed-book policy:** No use of graphic calculators, computer algebra systems, or books will be allowed during any in-class tests/quizzes. Scientific calculators are allowed.
- **Policy related to make-up exams or other work:** There will be no opportunities to make up for work not submitted. However, if a student provides a legitimate excuse well in advance, a change of due date may be arranged. Work with due date should be turned in at the beginning of class on the stated due date. Late work will not be accepted and will be deemed work not submitted.
- **Policy on class attendance:** Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.
- **University's honesty policy:** 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 obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.
- **For 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.
- **Students' evaluations of the course:** Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online 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>.
- **Disclaimer:** I reserve the right to change the above policies if situations warrant.

Homework problems for Intermediate Differential Equations Fall 2016

To be posted here.



