Sergei Pilyugin (https://people.clas.ufl.edu/pilyugin/)
Department of Mathematics

MAA 4103/5105 Advanced Calculus 2 E and PS (Spring 2021)

MAA 5105 & 4103 Introduction to Advanced Calculus 2 (Sections 4522, 1106, 1108)

Instructor: Sergei S. Pilyugin
(https://people.clas.ufl.edu/pilyugin/) https://people.clas.ufl.edu/pilyugin/courses/maa5105_s2021/
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Announcements:

Any updates, announcements etcetera will now be posted on canvas. If something does not work properly, please let me know and we'll figure out how to fix it.

The class will be taught in HyFlex mode: online sections will be delivered synchronously via Canvas/Zoom and the live section will meet in LIT 233 on MW and online on F. Any changes will be announced ahead of time. The lectures will be also recorded and the links to the recordings will be posted in canvas. All testing will be done in Canvas.

Please, follow all the University guidelines regarding the Covid-19 situation.

Homeworks: List of HW problems (https://people.clas.ufl.edu/pilyugin/maa4102_f2020_hw/).

Prerequisites: MAA 4102/5104 (Advanced Calculus 1).

Time and Room: MWF 5 (11:45 a.m – 12:35 p.m.), LIT 233 or Online (Zoom Meeting ID: 979 3027 0828, Passcode: see in Canvas).

Literature: Witold A. J. Kosmala, *A Friendly Introduction to Analysis* , Pearson, Prentice Hall, Upper Saddle River, NJ 07458.

Critical dates: Jan. 11 (classes begin), Apr. 21 (classes end). Quizzes: Q1 – 01/29, Q2 – 02/12, Q3 – 03/05, Q4 – 03/26, Q5 – 04/09. Midterms: M1 – 02/17->19, M2 – 03/17->19, M3 – 04/14->16.

Holidays: Jan. 18 (MLK Day), Mar. 24 (Recharge Day).

Office Hours: MWF 4 (10:40-11:30 a.m.) via Zoom (Meeting ID: 707 834 2997, Passcode: see in Canvas), or by appointment. Please, use e-mail: pilyugin@ufl.edu (mailto:pilyugin@ufl.edu) for communication. For more details, see my schedule. (https://people.clas.ufl.edu/pilyugin/schedule/)

Description and Objectives of the Course:

This course is the continuation of MAA 4102/5104 covering the topics of Riemann integral, numerical and functional series, and multivariate calculus.

Weekly Schedule:

W1: Differentiation and properties of differentiable functions;
W2: Review of mean value theorems and Taylor's theorem;
W3: Riemann integral, introduction;
W4-5: Properties of integrable functions;
W6: Antiderivatives, improper integrals;
W7: Infinite series, convergence tests;

W8: Absolute vs. conditional convergence;
W9: Sequences and series of functions, point wise vs. uniform convergence;
W10: Power series, Taylor series;
W11: Vectors in R^n, dot and cross product;
W12: Analytic geometry, parametric equations;
W13: Basic topology in R^n, limits and continuity;
W14: Differentiation in R^n, directional derivatives, chain rule;

Grading System: All testing will be done in Canvas. The individual score will be determined by five quizzes (10% each, best four count) consisting of randomly selected homework problems, and three take home midterms (20% each, 48 hours to submit the solutions). 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	**≥ 92**	**≥ 89**	**≥ 85**	**≥ 81**	**≥ 77**	**≥ 72**	**≥ 67**	**≥ 62**	**≥ 56**	**≥ 50**

Course policies:

Video recordings consent: Our class sessions may be audio-visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voice recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the “chat” feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials by students or any other party is prohibited.

Closed-book policy: No use of calculators, or books will be allowed during in-class tests.

Grading disputes: Any issues or questions about the grading of exams must be brought to the instructor’s attention within one week after the exams are returned to the class.

Excused absences: In certain circumstances, a student will be able to make up a missed exam. These circumstances could include medical situations, family emergencies, travel for University activities (eg. band, debating club, etc), and religious observances. In these cases the student must inform the instructor before or within one week after the missed work and **provide written documentation.** All make ups must be taken during the final exam time slot.

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 at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx
Most students benefit a great deal from attending class regularly. Arriving late and/or leaving early, reading the newspaper, looking at your cell phone, etc. disrupts the class and is rude and unprofessional.

UF 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 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 TA’s in this class.”

Diversity statement: The University of Florida and the Department of Mathematics are committed to diversity and inclusion of all students. We recognize the diversity of backgrounds and learning needs of our students and strive

to create a more inclusive and welcoming environment for everyone. We strongly believe that an inclusive learning environment promotes higher academic achievements.

For students with disabilities: “Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, https://www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.”

Online evaluations: 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.

Contact information for the Counseling and Wellness Center: https://counseling.ufl.edu/, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Edit (https://people.clas.ufl.edu/pilyugin/wp-admin/post.php?post=1039&action=edit)

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