

Course Information

Online office hours: TBA

Grading: Homework assignments (40%), exam (60%), bonus (max. 6%). The exam will take place in the regular session and will be open book and open notes. The bonus is awarded for the activity during the lecture and seminar classes. In order to pass this subject, both the grade at the exam and the final average should be at least 5.

Workflow: Until the end of the week, the solutions of the exercises discussed at the seminar will be uploaded, together with the material for the following week: lecture notes, the exercise set for the seminar, and the homework exercises.

The recording of any teaching activities is strictly prohibited. According to the National Education Law (LEN 2011), the recording by any procedure of teaching activities can only be performed with the expressed consent of the instructor. Moreover, General Data Protection Regulation (GDPR) laws apply.

Bibliography: All lecture and seminar materials will be provided via the Microsoft Teams platform (in the Files section). This content is based on and can be completed using the following references:

- [1] R.G. Bartle, D.R. Sherbert, Introduction to Real Analysis, 4th ed., John Wiley & Sons Inc., New York, 2011.
- [2] W.W. Breckner, Analiză matematică. Topologia spațiului \mathbb{R}^n , Universitatea din Cluj-Napoca, Cluj-Napoca, 1985.
- [3] Ș. Cobzaș, Analiză matematică - Calculul diferențial, Presa Universitară Clujeană, Cluj-Napoca, 1997.
- [4] D.I. Duca, E. Duca, Exerciții și probleme de analiză matematică, vol. I, II, Casa Cărții de Știință, Cluj-Napoca, 2007, 2009.
- [5] W.J. Kaczor, M.T. Nowak, Problems in Mathematical Analysis, vol. I, II, III, American Mathematical Society, 2000, 2001, 2003.
- [6] M. Mureșan, A Concret Approach to Classical Analysis, Springer, New York, 2008.
- [7] M. Oberguggenberger, A. Ostermann, Analysis for Computer Scientists, Foundations, Methods, and Algorithms, Springer, London, 2011.
- [8] W. Rudin, Principles of Mathematical Analysis, 3rd ed., McGraw-Hill Inc., New York, 1976.
- [9] P. Straffin ed., Applications of Calculus, Mathematical Association of America, Washington, DC, 1993.
- [10] T. Trif, Probleme de calcul diferențial și integral în \mathbb{R}^n , Casa Cărții de Știință, Cluj-Napoca, 2003.