

MATH 321/421-102: FUNDAMENTALS OF ANALYSIS I-102

INSTRUCTOR INFORMATION

- **Instructor:** Michael Roysdon
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- **Phone Number:** 2163682903
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- **Office Hours:** MWF 12:45PM-1:45PM. Zoom by appointment.
- [Instructor Webpage](#)

COURSE INFORMATION

- **Course Time:** Mon/Wed/Fri: 11:40 PM-12:30 PM
- **Classroom:** Sears 439
- **Textbook:** *Basic Analysis I: Introduction to Real Analysis, Volume 1.* by Lebl, Jiri, which is available for free at [PDF download](#). There can also be found a link to the paperback copy of the text (for purchase).
- **The Course:** This is the first course of a two semester sequence (MATH 321-322) whose object is to teach mathematical reasoning in the context of analysis in n -dimensional space and which is required for all mathematics majors. It may also be of interest to all *mathematically oriented* undergraduates who wish to achieve a higher degree of understanding of the mathematical tools used in their areas. A parallel objective is to learn to write in *mathematical prose*, so in some ways this is a course with a substantial writing component. While the formal prerequisite for the course is only MATH 223 (Multivariate Calculus), students who did not take any proof-oriented math class (such as for example MATH 304 or MATH 307) should consider enrolling in MATH 305 (Introduction to Advanced Mathematics), which is offered this semester in the MWF 9:30-10:20AM time slot.

The same sequence is offered as MATH 421-422 to graduate students from departments other than Mathematics.

- **Catalog Course Description:** Abstract mathematical reasoning in the context of analysis in Euclidean space. Introduction to formal reasoning, sets and functions, and the number systems. Sequences and series; Cauchy sequences and convergence. Required for all mathematics majors. Additional work required for graduate students. (May not be taken for graduate credit by graduate students in the Department of Mathematics.)

- **Grading:** The course grade will be determined by homework assignments and three exams.
 - **Homework Assignments:** 250 points.
 - **Three Exams:** 250 points each.
 - **Total: 1000 points**
- **Academic Integrity:** It is okay (and in fact, encouraged) to discuss homework assignments with fellow students; however, **any** submitted work must be your own. See CWRU's policy on academic integrity [here](#).
- **Special Accommodations:** The University is committed to providing reasonable accommodations to students with disabilities. Any student who has, or thinks they may have, a disability should contact Disability Resources (216.368.5230 or disability@case.edu). Additional information is available at <http://students.case.edu/education/disability/>.

Requests for accommodations in this course should be made in private as soon as possible and must be accompanied by a letter from Disability Resources.