

# Math 131AB: Analysis

## Math 131C: Topics in Analysis

- [Math 131A: General Course Outline & Catalog Description](#)
- [Math 131B: General Course Outline & Catalog Description](#)

Math 131AB is the core undergraduate course sequence in mathematical analysis. The aim of the course is to cover the basics of calculus, rigorously. Along with Math 115A, this is the main course in which students learn to write logically clear and correct arguments. As a result of the emphasis upon rigor and proof technique, Math 131A is regarded by many students as the most difficult undergraduate mathematics course.

There is an honors sequence Math 131AH-131BH running parallel to 131A-131B in fall and winter. 131AH: Rigorous treatment of the foundations of real analysis, including construction of the rationals and reals; metric space topology, including compactness and its consequences; numerical sequences and series; continuity, including connections with compactness; rigorous treatment of the main theorems of differential calculus. 131BH: The Riemann integral; sequences and series of functions; power series, and functions defined by them; differential calculus of several variables, including the implicit and inverse function theorems.

Math 131C is a special topics analysis course offered in the spring that is designed for students completing the honors sequence as well as the regular 131AB sequence. It traditionally covers Lebesgue measure and integration

Math 131A is offered each term, while 131B is offered only Winter and Spring. Recent enrollment statistics for the two courses (excluding the honors sections) are given in the following tables.

### Recent Enrollment Statistics

#### Math 131A

Year	Fall	Winter	Spring
1993-1994	57 (2 sections)	45 (2 sections)	46 (2 sections)
1994-1995	63 (2 sections)	45 (2 sections)	43 (2 sections)
1995-1996	64 (2 sections)	35 (2 sections)	39 (2 sections)
1996-1997	55 (2 sections)	41 (1 section)	43 (1 section)
1997-1998	60 (2 sections)	36 (1 section)	35 (1 section)
1998-1999	72 (2 sections)	40 (1 section)	40 (1 section)
1999-2000	76 (2 sections)	67 (2 sections)	40 (1 section)
2000-2001	75 (2 sections)	80 (2 sections)	67 (2 sections)
2001-2002	94 (3 sections)	69 (2 sections)	26 (1 section)
2002-2003	112 (3 sections)	112 (3 sections)	73 (2 sections)
2003-2004	103 (3 sections)	107 (3 sections)	(1 section)

## Math 131B

Year	Fall	Winter	Spring
1993-1994	(no sections)	14 (1 section)	23 (1 section)
1994-1995	(no sections)	28 (1 section)	25 (1 section)
1995-1996	(no sections)	17 (1 section)	21 (1 section)
1996-1997	(no sections)	11 (1 section)	17 (1 section)
1997-1998	(no sections)	18 (1 section)	19 (1 section)
1998-1999	(no sections)	20 (1 section)	25 (1 section)
1999-2000	(no sections)	30 (1 section)	23 (1 section)
2000-2001	(no sections)	32 (1 section)	32 (1 section)
2001-2002	(no sections)	41 (2 sections)	39 (1 section)
2002-2003	(no sections)	31 (2 sections)	42 (2 sections)
2003-2004	(no sections)	28 (1 section)	(1 section)

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