MATH 6952 - Analysis of Real Variable Functions

Fall 2026 Syllabus, Section 01, CRN 42767,

Credit hours: 3

Instructor

Jamal Tartir

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Public Instructor Information

Instructor Title: Professor
Instructor Professional Qualifications: Doctor of Philosophy in Mathematics, Ohio University
Master of Arts in Mathematics, Miami University
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Course Description

6952. Analysis of Real Variable Functions. This course covers topics in the analysis of functions, mainly of several variables, and may include uniform convergence of sequences of functions and some consequences, functions on n-space, derivatives in vector spaces, and results such as the mean value theorem, Taylor's formula, inverse mapping theorem, and the implicit mapping theorem. Prereq.: C or better in either MATH 3751 or MATH 5851 or satisfactory score on a Departmental prerequisite examination. 3 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Introduction to Real Analysis (4th Edition)	Robert G. Bartle and Donald R. Sherbert	978-0-471-43331-6
Required	Elementary Real Analysis (2nd Edition)	Brian S. Thomas, Judith B. Bruckner, and Andrew M. Bruckner	978-1434843678

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Week of	Reading(s)	Proposed Topic	Due/To Prepare for Class
8/24	Chapter 7 of BS	Review of the Reimann Integral	
8/31	Chapter 7 of BS	The FToC and the Darboux Integral	
9/7	Chapter 7 of BS	The Darboux Integral and It's comparison to the Reimann Integral	
9/14	Chapter 8 of BS, Chapter 9 of TBB	Sequences of Functions and Series	
9/21	Chapter 9 of BS, Chapter 9 of TBB	Series of Functions	
9/28	Chapter 10 of TBB	Power Series	
10/5	Chapter 10 of TBB	Power Series and Functions	
10/12	Chapter 10 of TBB	Properties of Power Series	
10/19	Chapter 11 of BS, Chapter 11 of TBB	Topology of Euclidean Spaces	
10/26	Chapter 11 of TBB	Sequences and Functions in Euclidean Spaces	
11/2	Chapter 11 of TBB	Limits and Continuity of Multivariable Functions	

11/9	Chapter 11 of TBB	Properties of Continuous Multivariable Functions
11/16	Chapter 12 of TBB	Differentiability of Multivariable Functions
11/23	Chapter 12 of TBB	Properties of Differentiable Multivariable Functions
11/30	Chapter 12 of TBB	Properties of Differentiable Multivariable Functions Continued
12/7	Final Exams Week	

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.