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Course Detail

MATH 2010 - Advanced Calculus I

Language:

English



Course Details

Career	Undergraduate	
Units	3.00	
Grading Basis	Graded	
Course Components	Lecture	Required
	Interactive Tutorial	Required
Campus	Main Campus	
Academic Group	Dept of Mathematics	
Academic Organizations	Dept of Mathematics	

Enrollment Information

Enrollment Requirement	Not for students who have taken MATH2018. Pre-requisite: MATH1010/1018 or (Grade B or above in MATH1510 or MATH1520). Co-requisite: MATH1030/1038 or MATH1050/1058.
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Description

This course is intended to introduce the basics of the calculus of functions of several variables. Topics include: vectors, geometry of Euclidean spaces, curves, limits, partial derivatives, differentiability, chain rule, first and second derivative test, maximum and minimum, Taylor polynomials, Lagrange multipliers, implicit function theorem.
Advisory: MATH Majors should select not more than 5 MATH courses in a term.

Grade Descriptor

A

Demonstrates well integrated knowledge and a deep understanding of the basics of multivariable differential calculus; able to completely solve unfamiliar and nonstandard problems, and provide innovative approaches to challenging ones.

A-

Demonstrates good knowledge and a strong understanding of the basics of multivariable differential calculus; able to provide highly accurate solutions to unfamiliar and nonstandard problems.

B

Demonstrates essential knowledge and a good understanding of the basics of multivariable differential calculus; able to identify and apply appropriate theorems to solve unfamiliar but standard problems.

C

Demonstrates satisfactory knowledge and an understanding, perhaps with gaps, of the basics of multivariable differential calculus; able to solve slight variations of routine problems.

D

Demonstrates disconnected knowledge and only a limited understanding of the basics of multivariable differential calculus; able to solve routine problems.

F

Unable to demonstrate sufficient knowledge and understanding of the basics of multivariable differential calculus; unable to solve the simplest type of problems.