

# COURSE DETAIL

## CALCULUS

**Country**

Singapore

**Host Institution**

National University of Singapore

**Program(s)**

National University of Singapore

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Mathematics

**UCEAP Course Number**

185

**UCEAP Course Suffix****UCEAP Official Title**

CALCULUS

**UCEAP Transcript Title**

CALCULUS

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

This is a course in single-variable calculus. It introduces precise definitions of limit, continuity, derivative, and the Riemann integral. It covers computational techniques and applications of differentiation and integration. This course concludes with an introduction to first order differential equations. Major topics include functions; limit and continuity; derivative; Intermediate Value Theorem; chain rule; implicit differentiation; higher derivatives; Mean Value Theorem; Riemann integral; Fundamental Theorem of Calculus; elementary transcendental functions and their inverses; techniques of integration; computation of area, volume and arc length using definite integrals; and first order differential equations.

## Language(s) of Instruction

English

## Host Institution Course Number

MA2002

## Host Institution Course Title

CALCULUS

## Host Institution Course Details

## Host Institution Campus

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

Mathematics

## Course Last Reviewed

2023-2024

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