Course Outline: Business Calculus

# Course Title

Business Calculus

# Course Description

Business Calculus is a course designed for 2nd Year Business Students who want to develop their mathematical skills and apply them to real-world business problems. This course will introduce students to the fundamental concepts of calculus, including limits, derivatives, and integrals, and how they can be used to analyze and optimize business functions.  
  
Throughout the course, students will learn how to use calculus to solve problems related to business functions such as revenue, cost, profit, and demand. They will also learn how to use calculus to analyze and optimize business processes such as production, inventory, and pricing.  
  
In addition to theoretical concepts, this course will also provide practical applications of calculus in business. Students will work on case studies and real-world examples to develop their problem-solving skills and apply their knowledge to real-world scenarios.  
  
By the end of this course, students will have a solid understanding of calculus and its applications in business. They will be able to use calculus to analyze and optimize business functions and processes, and make informed decisions based on mathematical analysis. This course will prepare students for advanced courses in business and economics, as well as for careers in finance, accounting, and management.

# Instructor Name

Jun Albert Pardillo

# Credit Units

3

# Target Students

2nd Year Business Students

# Total Hours

54

# Class Hours per Week

3

# Course Schedule

## Introduction to Business Calculus

Hours: 3

Overview of calculus and its importance in business. Introduction to limits and continuity.

## Derivatives and Their Applications

Hours: 12

Understanding derivatives, rules of differentiation, and applications in marginal analysis for cost, revenue, and profit optimization.

## Integrals and Their Applications

Hours: 12

Fundamentals of integration, definite and indefinite integrals, and applications in calculating area under curves for total cost and revenue analysis.

## Applications in Business Functions

Hours: 15

Use of calculus in optimizing business functions such as production, inventory management, and pricing strategies.

## Case Studies and Real-World Applications

Hours: 12

Analyzing and solving real-world business problems using calculus. Working on case studies and projects.