

## **Calculus and Probability for Business**

<b>Course Number:</b>	MTH 205	Term:	Summer, 2021
Instructor:	TBA	Email:	
<b>Contact Hours:</b>	60	Meeting Times:	TBA
Credits:	4.0	-	

#### **Course Description:**

This course provides students with critical mathematics skills needed for analysis in business and organizational contexts. Students develop competency in necessary topics related to calculus and probability, with a focus on real-world application.

## Learning Objectives:

Upon successful completion of the course, students will be prepared to:

- 1. Apply fundamental theorems and concepts of calculus
- 2. Apply derivatives to authentic problems
- 3. Use techniques of integration
- 4. Explain foundational concepts of probability
- 5. Calculate and interpret probabilities, means, and standard deviations
- 6. Analyze business scenarios using calculus and probability

## **Required Textbook and Course Materials:**

Text: Methods of Mathematics Applied to Calculus, Probability, and Statistics

Author: Hamming, Richard W.

ISBN-10: 1-947172-14-X

#### Language of Instruction:

This course is taught entirely in English, including lectures, homework, assignments and examinations. Teaching assistants will be fluent in both English and Mandarin.

#### **Course Prerequisites:**

MTH111 Calculus I or equivalent

#### **University Policies**

#### **Class Format**

In Person. Course activities, discussions, assignments and resources will be made available at the start of and during the course.

#### **Attendance, Participation and Deliverables**

Courses are very intensive and in order to be successful, students need to attend every class. Attendance is required for all lectures and class activities. Class participation is expected from every student and form a significant portion of the final course grade.

All course deliverables (homework assignments and tests) are due on time as assigned. This course includes *no* make-ups, postponements or additional assignments, except for verified medical emergencies. If you miss an exam/assignment due to a non-sanctioned absence, your score on that exam/assignment will be zero.

#### **Academic Dishonesty**

All cases of academic dishonesty will be diligently pursued. Academic dishonesty includes representing the work of another as one's own work or cheating by any means. Academic dishonesty also includes aiding, abetting, concealing or attempting such activity. The penalty is automatic failure of the course and possible suspension from the university.

# **Grading Scale**

Grading Scale (%)				
97 - 100	A+		77 – 79	C+
93 - 96	А		73 - 76	С
90 - 92	A-		70 - 72	C-
87 - 89	B+		67 – 69	D+
83 - 86	В		63 – 66	D
80 - 82	B-		60 - 62	D-
			0 - 59	F

## **Professor- and Course-Specific Policies** (*Tentative*)

#### **Exams:**

No make-ups will be given after the exam. The use of the textbook or any other written reference is not allowed during the exams. Calculators are allowed. The purpose of the exams is to test your understanding of key concepts from the course lectures and materials

### Homework:

Assignments will be listed at the beginning of the course. The purpose is to prepare you for the exams. The homework is a very important part of the course. No matter how well you think you understand the material presented in class, you won't really learn it until you do the problems.

#### **Grade Components:**

Attendance	10%
Homework	20%
Quizzes	20%
Midterm Exam	25%
Final Exam	25%
Total	100%

# Course Schedule (*Tentative*)

Module	Topics
1	Calculus for Business
2	Calculus for Business (continued)
3	Probability for Business
4	Probability for Business (continued)
5	Real-World Applications