MATH 2411 – Applied Statistics

School:	School of Science
Subject Area:	Mathematics
Course Credit:	4
Instructor:	YU Chi Wai
Pre-requisite/co-requisite:	**Details Here**

Notes:

- The syllabi provided here is for reference only and may be subject to changes and adjustments as determined by the course instructors.

MATH 2411   Applied Statistics

Course Outline – Summer 2026

1. Instructor
Name: Dr. Chi-Wai YU
Contact Details: Rm 3419; phone: 2358-7429; e-mail: macwyu@ust.hk

2. Teaching Assistant
Name: TBA
Contact Details: TBA; phone: TBA; e-mail: TBA

3. Meeting Time and Venue

Lectures:

L1
Date/Time: 9am – 12:50pm (Mon, Wed, Fri) on June 15 2026– July 10 2026
Venue: TBA

Tutorials:

T1
Date/Time: 5:30pm – 6:20pm (Mon, Wed, Fri) on June 15 2026– July 10 2026
Venue: TBA

4. Course Description
Credit Points: 4 units
Corequisites: MATH 1014 OR MATH 1018 OR MATH 1020 OR MATH 1024
Exclusions: IELM 2510, ISOM 2500, LIFS 3150
Brief information:

This course covers the material about probability theory, random variables, probability distributions, expectation, a systematic introduction to statistical inference, including the point and interval estimation, hypothesis testing, and linear regression modeling.

5. **Intended Learning Outcomes**

   On successful completion of this course, students are expected to be able to:

No.	ILOs
1	Solve some basic problems in probability.
2	Make inferences about population by applying a range of statistical approaches, such as estimation and hypothesis testing.
3	Find a "good" regression line to describe the relationship between a response variable and an explanatory variable, with a given data set.

6. **Assessment Scheme**
   a. Examination duration: 2.5 hrs for the final exam.
   b. Percentage of examination.

Assessment	Assessing Course ILOs
20% by assignments	1, 2, 3
80% by the final exam	1, 2, 3

   c. The grading is assigned based on students' performance in assessment tasks.

7. **Student Learning Resources**

   Lecture Notes:
   The course notes are available online. These notes give a concise (to the point) presentation of the course material, usually enough for most students. Some supplementary material can also be found and downloaded on the course webpage.

   Textbook: "Probability and Statistics for Engineers and Scientists" (7th Edition Prentice Hall) by Ronald E. Walpole, Raymond H. Myers, Sharon L. Myers and Keying Ye.

8. **Teaching**
   Weekly schedule: 3 hrs for lecture and 1 hr for tutorial

9. **Course Schedule**

   Keyword Syllabus:
   - Descriptive Statistics
   - Introduction to Probability Theory
   - Discrete Random Variables and Discrete Probability Distributions
   - Continuous Random Variables and Continuous Probability Distributions
   - Point Estimation, Interval Estimation, Testing Hypothesis
   - Simple Linear Regression
   - Goodness of fit test
   - ANOVA