

## Tamkang University Academic Year 111, 1st Semester Course Syllabus

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                   |            |                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------|
| Course Title                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | STATISTICS (I)                                                                                    | Instructor | MATEUS LEE                                                                                                     |
| Course Class                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | TRDXB2A<br>DEPARTMENT OF DIPLOMACY AND<br>INTERNATIONAL RELATIONS (ENGLISH-TAUGHT<br>PROGRAM), 2A | Details    | <ul style="list-style-type: none"> <li>◆ General Course</li> <li>◆ Required</li> <li>◆ One Semester</li> </ul> |
| Relevance to SDGs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SDG4 Quality education<br>SDG9 Industry, Innovation, and Infrastructure                           |            |                                                                                                                |
| <b>Departmental Aim of Education</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                   |            |                                                                                                                |
| To provide students with an understanding of the major theories in diplomacy & international relations and to equip students with practical skills and help them become outstanding members of the diplomatic and international relations community.                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                   |            |                                                                                                                |
| <b>Subject Departmental core competences</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                   |            |                                                                                                                |
| <ul style="list-style-type: none"> <li>A. Every student will process essential understanding of theories of international relations. (ratio:5.00)</li> <li>B. Every student will have primary perception of current international issues.(ratio:5.00)</li> <li>C. Every student will become capable of Independent thinking and information processing to further improve international relations.(ratio:40.00)</li> <li>D. Every student will process essential knowledge of participation in governmental &amp; non-governmental affairs.(ratio:10.00)</li> <li>E. Every student will display high-level competence in English.(ratio:40.00)</li> </ul> |                                                                                                   |            |                                                                                                                |
| <b>Subject Schoolwide essential virtues</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                   |            |                                                                                                                |
| <ul style="list-style-type: none"> <li>1. A global perspective. (ratio:5.00)</li> <li>2. Information literacy. (ratio:30.00)</li> <li>3. A vision for the future. (ratio:5.00)</li> <li>4. Moral integrity. (ratio:10.00)</li> <li>5. Independent thinking. (ratio:30.00)</li> <li>6. A cheerful attitude and healthy lifestyle. (ratio:10.00)</li> <li>7. A spirit of teamwork and dedication. (ratio:5.00)</li> <li>8. A sense of aesthetic appreciation. (ratio:5.00)</li> </ul>                                                                                                                                                                       |                                                                                                   |            |                                                                                                                |

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| Course Introduction | <p>The course introduces the basic concepts of statistics with practical applications. Popular statistical softwares (for example, Excel and Gretl) are also introduced in helping students to know how to apply statistics by softwares. Our goal is to establish the students' fundamental capability in organizing, analyzing and interpreting data.</p> |
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**The correspondences between the course's instructional objectives and the cognitive, affective, and psychomotor objectives.**

Differentiate the various objective methods among the cognitive, affective and psychomotor domains of the course's instructional objectives.

- I. Cognitive : Emphasis upon the study of various kinds of knowledge in the cognition of the course's veracity, conception, procedures, outcomes, etc.
- II. Affective : Emphasis upon the study of various kinds of knowledge in the course's appeal, morals, attitude, conviction, values, etc.
- III. Psychomotor: Emphasis upon the study of the course's physical activity and technical manipulation.

| No. | Teaching Objectives                                                                               | objective methods |
|-----|---------------------------------------------------------------------------------------------------|-------------------|
| 1   | Understanding the basic concepts of statistics.                                                   | Cognitive         |
| 2   | Helping the students to acknowledge how to apply statistics.                                      | Cognitive         |
| 3   | Strengthening the students' capabilities of independent thinking, analyzing and solving problems. | Cognitive         |

The correspondences of teaching objectives : core competences, essential virtues, teaching methods, and assessment

| No. | Core Competences | Essential Virtues | Teaching Methods    | Assessment                                                                                     |
|-----|------------------|-------------------|---------------------|------------------------------------------------------------------------------------------------|
| 1   | CE               | 23567             | Lecture, Discussion | Testing, Study Assignments, Discussion(including classroom and online), Activity Participation |
| 2   | ABCDE            | 12345678          | Lecture, Discussion | Testing, Study Assignments, Discussion(including classroom and online)                         |
| 3   | ABCDE            | 245678            | Lecture, Discussion | Testing, Study Assignments, Discussion(including classroom and online), Activity Participation |
|     |                  |                   |                     |                                                                                                |

| Course Schedule |                          |                                                                                                            |                                      |
|-----------------|--------------------------|------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Week            | Date                     | Course Contents                                                                                            | Note                                 |
| 1               | 111/09/05 ~<br>111/09/11 | Introduction of the Course and What is Statistics                                                          | Data Experiment and Discussion       |
| 2               | 111/09/12 ~<br>111/09/18 | Chapter 2. Describing Data (I): Frequencies and Graphic Presentation                                       |                                      |
| 3               | 111/09/19 ~<br>111/09/25 | Chapter 3. Describing Data (II): Measures of Location                                                      |                                      |
| 4               | 111/09/26 ~<br>111/10/02 | Chapter 3. Describing Data (III): Measures of Variation                                                    |                                      |
| 5               | 111/10/03 ~<br>111/10/09 | Chapter 4. Describing Data (IV): Measures of Position, Skewness and the Relationship Between Two Variables |                                      |
| 6               | 111/10/10 ~<br>111/10/16 | Learn how to use statistical software for Statistics                                                       | Practice class in computer classroom |
| 7               | 111/10/17 ~<br>111/10/23 | Chapter 5. Probability (I): Concepts of Probability                                                        |                                      |
| 8               | 111/10/24 ~<br>111/10/30 | Chapter 5. Probability (II): Calculation of Probability                                                    | Dice Throwing experiment             |
| 9               | 111/10/31 ~<br>111/11/06 | Chapter 5. Probability (III): Bayes' Theorem                                                               |                                      |
| 10              | 111/11/07 ~<br>111/11/13 | Midterm Exam Week                                                                                          |                                      |
| 11              | 111/11/14 ~<br>111/11/20 | Midterm Review                                                                                             | Correction Exercise                  |
| 12              | 111/11/21 ~<br>111/11/27 | Chapter 6. Discrete Probability Distribution (I): Bernoulli Trial and Binomial Distribution                |                                      |
| 13              | 111/11/28 ~<br>111/12/04 | Chapter 6. Discrete Probability Distribution (II): Poisson Distribution                                    |                                      |
| 14              | 111/12/05 ~<br>111/12/11 | Chapter 7. Continuous Probability Distribution (I): Normal Distribution                                    |                                      |
| 15              | 111/12/12 ~<br>111/12/18 | Chapter 7. Continuous Probability Distribution (II): Standard Normal Distribution                          |                                      |
| 16              | 111/12/19 ~<br>111/12/25 | Chapter 8. Sampling Distribution of Sample Mean (I): Sampling Methods and Sampling Error                   |                                      |
| 17              | 111/12/26 ~<br>112/01/01 | Chapter 8. Sampling Distribution of Sample Mean (II): What is the mean and standard error of sample mean?  |                                      |
| 18              | 112/01/02 ~<br>112/01/08 | Final Exam Week                                                                                            |                                      |
|                 |                          |                                                                                                            |                                      |

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| Requirement                      | (1) Participate in In-class exercises are Critical of Statistics Learning.<br>(2) No Eating and Talking in the Class.<br>(3) Behave Well and Do Not Use Any 3C Devices in the Class.<br>(4) Being in Class On Time.<br>(5) Asking Question is a Credit.<br>(6) Lesson Preview and Review are Recommended.                                                                                                                                                                                                                        |
| Teaching Facility                | Computer, Projector                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Textbooks and Teaching Materials | (1) Lind D.A., Marchal W.G. & Wathen S.A. (2020). Statistical Techniques in Business & Economics (18th edition). McGraw Hill.<br>(2) Lecture notes and materials will be uploaded online every week.                                                                                                                                                                                                                                                                                                                             |
| References                       | (1) Weiss, Neil A. (2017). Introductory Statistics (10e). Pearson.<br>(2) Moore D., McCabe G.P. & Craig B.A. (2017). Introduction to the Practice of Statistics (9e). Macmillan Learning.                                                                                                                                                                                                                                                                                                                                        |
| Number of Assignment(s)          | <b>6</b> (Filled in by assignment instructor only)                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Grading Policy                   | ◆ Attendance : 10.0 %   ◆ Mark of Usual : 20.0 %   ◆ Midterm Exam : 20.0 %<br>◆ Final Exam : 30.0 %<br>◆ Other 〈 In-class Exercises 〉 : 20.0 %                                                                                                                                                                                                                                                                                                                                                                                   |
| Note                             | This syllabus may be uploaded at the website of Course Syllabus Management System at <a href="http://info.ais.tku.edu.tw/csp">http://info.ais.tku.edu.tw/csp</a> or through the link of Course Syllabus Upload posted on the home page of TKU Office of Academic Affairs at <a href="http://www.acad.tku.edu.tw/CS/main.php">http://www.acad.tku.edu.tw/CS/main.php</a> .<br><br><b>※ Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.</b> |