



1. General Information

Course Subject	ECON
Course Number	1280
Course Title	Analysis of Economic Data
Academic Years	2023-2024
Grading Method	Letter

2. Instructors

Professor YU, Ping
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4. Course Description

Course Description	This course studies the measurement and interpretation of economic variables, and how to model their relationships using appropriate empirical methods. Topics include interpretation of headline statistics, describing economic aggregates, modeling of economic relationships and drawing conclusions from observations.
Prerequisites	It is helpful but not necessary to achieve Level 2 or above in HKDSE Mathematics Module 1 or 2, or pass MATH1009 or MATH1011 or MATH1013. Only Lectures 4 and 8 involve calculus but the calculus knowledge like derivative or integral is not tested.
Mutually exclusive	IIMT1640 Probability and Statistics for Business STAT1601 Elementary Statistical Methods STAT1602 Business Statistics, STAT1603 Introductory Statistics STAT 2901 Probability and Statistics: Foundations of Actuarial Science Note: This course is NOT open to students taking or having taken STAT2601 Probability & Statistics I.

4. Course Description						
Free Elective	Yes					

5. Course Objectives						
1. To provide a thorough understanding of basic statistical concepts and tools.						
2. To apply statistical methods to real world problems.						
3. To provide the essential background knowledge for ECON2280.						

6. Faculty Learning Goals						
Goal 1: Acquisition and internalization of knowledge of the programme discipline						
Goal 2: Application and integration of knowledge						
Goal 3: Inculcating professionalism						
Goal 4: Developing global outlook						
Goal 5: Mastering communication skills						
Goal 6: Cultivating leadership						

7. Course Learning Outcomes						
Course Teaching and Learning Activities	Aligned Faculty Learning Goals					
	1	2	3	4	5	6
CLO1. Collect, summarize and present data useful for decision making. G	✓	✓	✓		✓	
CLO2. Estimate the parameters of variables.	✓	✓	✓			
CLO3. Test hypotheses about the parameters of variables.	✓	✓	✓			
CLO4. Test hypotheses using ANOVA.	✓	✓	✓			
CLO5. Apply the graphical and statistical functions of Excel to present and analyze data.	✓	✓	✓		✓	

8. Course Teaching and Learning Activities		
Course Teaching and Learning Activities #	Expected Study Hours	Study Load (% of study)
T&L1. Lectures	36	30
T&L2. Problem sets	36	30
T&L3. Tutorials	12	10
T&L4. Self-study	36	30
	Total: 120	Total: 100

9. Assessment Methods

Assessment Methods	Description	Weight %	Aligned Course Learning Outcomes
A1. Attendance, Exercise, Project, and/or Other	The course instructor will decide on the assessment method for this 10%	10%	1,2,3,4,5
A2. Assignments	The assignments are mainly from the textbook. A test bank is also provided.	40%	1,2,3,4,5
A3. Midterm Test	The midterm will mimic the assignments or the problems in the test bank.	20%	1,2,3,4,5
A4. Final Exam	The final will mimic the assignments or the problems in the test bank.	30%	1,2,3,4,5

10. Course Grade Descriptors

A+,A,A-	Strong evidence of superb ability to fulfill the intended learning outcomes of the course at all levels of learning: describe, apply, evaluate and synthesis.
B+,B,B-	Strong evidence of ability to fulfill the intended learning outcomes of the course at all levels of learning: describe, apply, evaluate and synthesis.
C+,C,C-	Evidence of adequate ability to fulfill the intended learning outcomes of the course at low levels of learning; such as describe and apply, but not at high levels of learning such as evaluate and synthesis.
D+,D	Evidence of basic familiarity with the subject.
F	Little evidence of basic familiarity with the subject.

11. Course Content and Tentative Teaching Schedule

Topic/ Session	Content	Readings	Other information
1	Describing Data: Graphical	Chapter 1	
2	Describing Data: Numerical	Chapter 2	
3	Probability: Random Experiment, Rules of Probability, Bayes' Theorem	Chapter 3	
4	Discrete Random Variables: Binomial/Poisson/Hypergeometric Distributions	Chapter 4	
5	Continuous Random Variables: Uniform/Normal/Exponential Distributions	Chapter 5	
6	Sampling Distribution Theory: Central Limit Theorem	Chapter 6	
7	Hypothesis Testing: One Population	Chapter 9	
8	Hypothesis Testing: Two Populations	Chapter 10	

11. Course Content and Tentative Teaching Schedule

9	Confidence Interval Estimation: One Population	Chapter 7	
10	Confidence Interval Estimation: Two Populations	Chapter 8	
11	Simple Regression	Chapter 11	
12	Sampling: Stratified, Cluster, and Other Sampling Methods	Chapter 17	

12. Required/Recommended Readings & Online Materials

Textbook	<u>Required Textbook:</u> Statistics for Business and Economics (Global Edition, 10th edition), by Paul Newbold, William Carlson and Betty Thorne, Pearson, 2022 MyLab (with etextbook) is available for enriching your self study. With the function of “Study Plan”, you can do more self-practice & self-quiz at your own pace. Purchase link: Print: https://apbookshop.com/HKU/EN/Display/PrintedBook?ISBN=9781292436845&ForMaterials=False&Created=False Digital: https://apbookshop.com/HKU/EN/Display/PrintedBook?ISBN=9781292436852&ForMaterials=False&Created=False Note: It is your own responsibility to acquire the 10th edition of the textbook. The instructor and TA are prohibited from uploading end-of-the-chapter questions in Moodle due to copyright regulations.
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13. Means / Processes for Student feedback on Course

✓	Conducting mid-term survey in additional to SETL around the end of the semester
	Online response via Moodle site
✓	Others
	emailing the instructor directly

14. Course Policy

1. Lecture PPT/PDF files will be posted on Moodle before each class. Please download and bring them to class.
2. Bring paper and be prepared to take notes in each lecture.
3. Tutorials:
 - 3.1 Tutorials start in the *third* week of class.
 - 3.2 A set of tutorial questions will be posted on Moodle one week in advance.
 - 3.3 You are expected to come to the tutorials *fully prepared*, i.e. you have already worked out the problem set before attending the tutorials. In this way, you can follow better and the TA can spend time to discuss the questions with you.
 - 3.4 The tutorials are dedicated to working out the tutorial questions. The TA will not give you another mini-lecture to summarize previous week's lecture.
4. Assignments: *All assignments can be either typed or handwritten and scanned.* This is a course policy that applies to all subclasses in all academic years. Please learn how to use LaTeX or MS Word's equation editor to type equations if you choose to type your assignments.
5. Lecture slides are not designed as substitutes for the textbook or coming to class. It pays to come to class for two reasons.
 - (a) Elaboration and some examples/handouts will be done only in class. You will miss a lot of material if you skip classes.
 - (b) The course requires students to not only know the technical calculation but also the ability to *explain* the economic intuition of statistical concepts and empirical results to end users.
6. *Excel*: You will be taught to use Excel to analyze data in this course, which is pre-installed in the lab computers.
7. Midterm examination policies: No supplementary midterm examination will be given. If you have a legitimate reason for missing the midterm, its weight will be added to the final exam. The only legitimate reason is sickness. If you cannot attend the midterm exam, you must inform the instructor or TA in person or via email (preferred) *before* the exam starts. In the case of sickness, you must provide a medical certificate to verify that you have sought medical treatment *prior* to the exam and that you are unfit to take the exam.
8. Do check your email regularly for course announcements from the instructor. But do not abuse the convenience of emails.
 - a. Do not ask about things you are supposed to know, such as those appear in Moodle or emails from the instructor/TA.
 - b. Minimize emailing your questions to the instructor/TA since it is often difficult to answer questions effectively via emails. Please go to see them in person during their office hours.
9. Classroom conduct: Be a considerate and mature person. The instructor and TA have the discretion to impose penalty in case of classroom misconduct.
 - a. Do not videotape or audio record the lectures in class since the recorded lectures would be uploaded in Moodle.
 - b. Please observe the following good practice:
 - Come to class and return from the break on time.
 - In case you are late, minimize disruption to the class by sitting at the back.
 - If you have to leave the class early, please inform the instructor beforehand and sit close to the door.
 - Stay attentive and do not chat with your classmates.
 - Use of mobile phone for any purposes is strictly prohibited. Remember to turn it off.
10. Academic Conduct

The University Regulations on academic dishonesty will be strictly enforced! Please check the University Statement on plagiarism on the web: <http://www.hku.hk/plagiarism/> Academic dishonesty is behavior in which a deliberately fraudulent misrepresentation is employed in an attempt to gain undeserved intellectual

14. Course Policy

credit, either for oneself or for another. It includes, but is not necessarily limited to, the following types of cases:

a. Plagiarism - The representation of someone else's ideas as if they are one's own. Where the arguments, data, designs, etc., of someone else are being used in a paper, report, oral presentation, or similar academic project, this fact must be made explicitly clear by citing the appropriate references. The references must fully indicate the extent to which any parts of the project are not one's own work. Paraphrasing of someone else's ideas is still using someone else's ideas, and must be acknowledged.

b. Unauthorized Collaboration on Out-of-Class Projects - The representation of work as solely one's own when in fact it is the result of a joint effort. Where a candidate for a degree or other award uses the work of another person or persons without due acknowledgement:

- (1) The relevant Board of Examiners may impose a penalty in relation to the seriousness of the offence;
- (2) The relevant Board of Examiners may report the candidate to the Senate, where there is prima facie evidence of an intention to deceive and where sanctions beyond those in (1) might be invoked.

Plagiarism will automatically result in at least a zero score in the plagiarized assignment or examination. Serious cases will be referred to the University's Disciplinary Committee.