

ECON 233
Introduction to Econometrics
Fall, 2009

Instructor: WANG, Peng
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Office Hours: Tue 10:00-11:00

Time and Location: Location: Room 4503

Section 1: Mon 15:00 - 16:20, Fri 10:30 - 11:50.

Section 2: Mon 13:30 - 14:50, Fri 09:00 - 10:20.

Tutorial sessions: Teaching Assistant: TSUI, Peter (ecpeter@ust.hk).

Section 1: Fri. 13:30-14:20 at Room 1505.

Section 2: Mon. 10:30-11:20 at Room 2503.

Course Description: This course will introduce students to econometric techniques and their applications in economic analysis. It begins with a review of basic statistical tools, followed by linear regression models with one regressor, linear regression models with multiple regressors. Emphasis will be put on practical issues in econometric analysis of cross-sectional data.

EViews will be used for computer-based calculation. EViews is available in Rm3211 and Rm4116.

OBE related goals: By the end of the course, students will be able to:

1. Weight the significance of key assumptions used in regression models, and explain the relationship between those assumptions and properties of estimators.
2. Construct an appropriate regression model and use EViews to analyze a given economic dataset, and then conduct statistical inference and interpret the results.
3. Collect their own dataset to conduct empirical analysis, and provide answers to economic questions.

During the course, students will also be provided the opportunity to:

1. Present their understanding of certain economic problems, and use empirical results to justify their explanation.

Prerequisites: Basic statistics; ISMT 111, MATH 243, MATH 244 or consent of instructor.

Textbook: Stock, James and Mark Watson (2008): "*Introduction to Econometrics.*" brief edition, Addison Wesley, ISBN 978-0-321-44296-3.

We also use the materials in the Companion Website (http://www.aw-bc.com/stock_watson).

Course Web Site: <http://lmes2.ust.hk>

Students should be able to access the course website for ECON233 in the LMES using their ITSC accounts.

Course Requirements:

Homework (15%): There will be about 5 problem sets, assigned during the semester. These problem sets focus on computational exercises. Students are encouraged to form small study groups, however, each student has to submit his/her own solution. **Students submit their solutions through the LMES.** Files must be read by Microsoft Word[®] or Acrobat Reader[®]. The problem sets will be graded on a 0 to 3 scale. The due dates will be specified in each assignment. The late penalty is 1 point per day, but **solutions submitted after suggested answers are distributed will receive zero credit.** Please also note that **email submissions will not be accepted.**

Short essay (10%): The detail of the assignment will be distributed later. This assignment is for the “Writing and Speaking through the Curriculum” program. See the WSC website at: lcms01.ust.hk/sbm.

1st Midterm (15%): Tentative schedule: TBA, Time TBA Tentative Location: TBA. Closed books and notes. No formula sheet will be provided. Non-programmable calculators may be used. The midterm will cover Stock and Watson, chapters 1-3. Note that the 1st midterm covers only the materials that should be taught in a basic statistics course.

2nd Midterm (20%): Tentative schedule: TBA, Time TBA Tentative Location: TBA. Closed books and notes. No formula sheet will be provided. Non-programmable calculators may be used. The midterm will cover Stock and Watson, chapters 1-7. Note that materials covered after the 1st midterm cannot be understood without good understanding of materials covered in the 1st midterm.

Final (40%): Time and Location: TBA. Closed books and notes. Non-programmable calculators may be used. The final will cover Stock and Watson, chapters 1-9. Note that materials covered after the 2nd midterm cannot be understood without good understanding of materials covered in the midterms.

Course Schedule (Tentative)

Sep. 4	OBE in a nutshell, Introduction to Econometrics	SW Ch. 1
Sep. 7, 11, 14	Review of probability theory	SW Ch. 2
Sep. 18, 21, 25, 28	Review of basic statistics	SW Ch. 3
Oct. 2	1st Midterm	
Oct. 5, 9	Simple linear regression: Estimation	SW Ch. 4
Oct. 12, 16	Simple linear regression: Inference	SW Ch. 5
Oct. 19, 23	Multiple Regression: Estimation	SW Ch. 6
Oct. 30, Nov 2	Multiple Regression: Inference	SW Ch. 7
Nov. 6	External Validity 1	SW Ch. 9
Nov. 9	2nd Midterm	
Nov. 13, 16, 20, 23	Nonlinear regression functions	SW Ch. 8
Nov 27, 30, Dec 4	Internal and external validity	SW Ch. 9
Dec 7	A guide for empirical studies	SW Ch. 10

References: The following book may be useful for better understanding of the materials covered in this course.

- Wooldridge, Jeffrey M. (2009): “*Introductory Econometrics: A Modern Approach.*” 4th edition, South-Western College Pub, ISBN 978-0324289787.

The following books may be useful for students who are interested in advanced topics.

- Greene, William (2008): “*Econometric Analysis.*” 6th edition, Prentice Hall, ISBN 978-0-13-513740-6.
- Wooldridge, Jeffrey M. (2001): “*Econometric Analysis of Cross Section and Panel Data.*” The MIT Press, ISBN 0-262-23219-7.