

INTERNATIONAL UNIVERSITY OF JAPAN
Graduate School of International Relations

Academic Year: 2016/2017

Term: Fall

Course	Course code DCC5220	Course title Statistical Methods	
Name of Instructor	Yusuke Jinnai		Credit Number: 2
Instructor's contact Information	Office# 308	Office Hours TBA	E-mail: yjinnai@iuj.ac.jp
Class Schedule Day / Time	TBA		

Course Description: This course is an introduction to probability and statistics. The course covers descriptive statistics, basic probability theory, estimation, hypothesis testing, and regression analysis. The goal of the course is to equip students with these statistical tools, which will form a basis for understanding econometric models in the subsequent courses.

Learning Objectives: This course is designed for Master's students to understand basic concepts and tools for making statistical inference. Understanding of statistics is necessary for all students for studying econometrics, which is a subsequent core course, reading academic papers, and writing own thesis.

Career Relevance: Since this course provides basic theory for statistical analysis, it should help students in their future role as a policy-maker, business analyst, or academic researcher in any field related to economics, statistics, and public policy.

Course Context or Rationalization: This course is one of the core courses for both IDP and PMPP students. The course contents provide necessary knowledge and analytical skills essential to other advanced theoretical and applied courses.

Delivery Methods: The course is lecture-based with some class discussions. In addition to regular classes, TA sessions will be organized every week.

Assessment: Weekly problem sets (10%), midterm exam (30%), and the final exam (60%).

Prerequisite: There is no pre required course.

Textbook(s)	Required textbook: a) Title: Statistics for Business and Economics, b) Edition: 8 th
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	<p>edition, c) Authors: Newbold, Carlson & Thorne, d) Publisher: Pearson Education, e) Year: 2012, f) ISBN: 978-0273767060, g) Global Edition (soft cover).</p> <p>Reference book (for those who have never taken a Statistics course before): a) Title: Naked Statistics: Stripping the Dread from the Data, b) Edition: N/A, c) Author: Charled Wheelan, d) Publisher: W. W. Norton & Company, e) Year: 2014, f) ISBN: 978-0393347777.</p>
Class Outline	<ol style="list-style-type: none"> 1. Introduction and overview 2. Descriptive statistics (1) 3. Descriptive statistics (2) 4. Probability(1) 5. Probability(2) 6. Discrete random variables and probability distribution(1) 7. Discrete random variables and probability distribution(2) 8. Continuous random variables and probability distribution(1) 9. Continuous random variables and probability distribution(2) 10. Sampling distribution(1) 11. Sampling distribution(2) 12. Midterm exam 13. Point and interval estimation(1) 14. Point and interval estimation(2) 15. Hypothesis testing(1) 16. Hypothesis testing(2) 17. Least squares and simple regression(1) 18. Least squares and simple regression(2) 19. Multiple regression(1) 20. Multiple regression(2)
Others (if any)	