



**INSTITUT TEKNOLOGI SEPULUH NOPEMBER
FACULTY OF SCIENCE AND DATA ANALYTICS
DEPARTMENT OF STATISTICS
STATISTICS UNDERGRADUATE PROGRAM**

Course	Course Name	: Introduction to Econometrics
	Course Code	: SS234416
	Credit	: 3 SKS
	Semester	: IV

COURSE DESCRIPTION

Econometrics is a course in the field of economic and financial statistics. The purpose of this course is to be able to apply statistical methods in the field of economics. In this course, students will learn about econometric methodology in research which includes making model specifications, estimating models, evaluating the results of model estimates, and evaluating forecasting power. The econometric models discussed include single equations, SUR, as well as both static and dynamic simultaneous equations with applications in micro and macro economics. In this lecture, case studies will also be presented to evaluate the results of other people's research, as well as econometric modeling so that they can be used as tools in decision making to solve problems in real cases.

PROGRAM LEARNING OUTCOME

- PLO-2 Able to study and utilize science and technology in order to apply it to certain areas of expertise, and be able to make appropriate decisions from the results of their own work or group work in the form of final project reports or other forms of learning activities whose output is equivalent to the Final Project through logical, critical thinking, systematic and innovative
- PLO-9 Able to apply statistical methods to analyze theoretical and real problems
- PLO-10 Able to apply business, industrial, economic, social, health or environmental statistical methods to real problems

COURSE LEARNING OUTCOME

- CLO.1 Understand economic terms and provide an understanding of the basic understanding and concepts of economics
- CLO.2 Able to explain economic theory (micro and macro) verbally, graphically, and mathematically
- CLO.3 Able to apply economics to analyze data in their field of work with appropriate statistical methods
- CLO.4 Able to identify and formulate problems in their field of work into an economic model to solve problems
- CLO.6 Have knowledge of current and future issues related to the economic sector (micro and macro)
- CLO.7 Able to communicate effectively and work together in interdisciplinary and

CLO.8	multidisciplinary teams Having professional responsibility and ethics
CLO.9	Able to motivate yourself to think creatively and learn throughout life
MAIN SUBJECT	
<ol style="list-style-type: none"> 1. Intro to econometrics 2. Demand and supply, market balance, and production. 3. National Income 2, 3, and 4 sectors 4. The stages in econometric research 5. Regression analysis and its examples in economics 6. Assumptions of regression models with the OLS estimation method, and their violations 7. Detecting, consequences, & overcoming heteroscedasticity and autocorrelation 8. Autoregressive models and lag distribution models (ARDL) 9. Regression model with panel data 	
PREREQUISITE	
Regression Analysis	
REFERENCES	
<ol style="list-style-type: none"> 1. Greene, William H. 2007. Econometric Analysis. 6th edition. Englewood Cliffs, N. J. : Prentice Hall. 2. Gujarati. 2008. Basic Econometrics. 4th edition. McGraw-Hill Companies. 3. Kmenta, J. 1986. Elements of Econometrics. 2d edition. New York : Macmillan. 4. Koutsoyiannis, A. Theory of Econometrics. 5. Setiawan dan Kusri DE. 2008. Ekonometrika. 	