Introduction to Econometrics

Course : **Introduction to Econometrics**

Grade :3rd Semester (Odd Semester 2022/2023)

Credits : 3 (150/meeting, 16 meetings in 1 semester)

Instructor : Dr. Bagus Wiranatakusuma, S.E., M.Ec (dimas_kusuma@umy.ac.id)

DESCRIPTION

Econometrics is the use of computer analysis and modeling techniques to explain the relationship between major economic forces such as employment, capital, interest rates, and government policies in mathematical terms, and then examine the effects of changes in economic scenarios. Syahrul (2000:150)

Koutsoyiannis A. (1977). Econometrics is a combination of economic theory, mathematical economics, and statistics, but it is completely distinct from each one of these three branches of science. "The application of mathematical statistics to economic data to lend empirical support to models constructed by mathematical economics and to obtain numerical estimates" (Samuelson et al., Econometrica, 1954

The Course Features

Students will be able to:

- Students understand the definitions and concepts of Econometrics
- Students understand the method of Regression analysis
- Students are able to explain the results of the analysis with regional economic development
- Students are able to link Regression tools to explain agricultural and industrial development
- Students are able to relate and analyze regression with economic and trade policies in development

Reference :

- Gujarati, D, 1978. ***Basic Econometrics***, McGraw-Hill, Inc.
- Basuki, A.T. dan Rosnawintang. 2021. ***Pengantar Ekonometrika Dilengkapi Penggunaan SPSS dan Eviews***. UMY Press. Yogyakart

Assessment :

GRADE	SCORE	DESCRIPTION
Very Good	80-100	Discipline in doing assignments and Submission of analysis that can be very well received by others
	75-79	Discipline in doing assignments Very Good and Submission of analysis that can be well received by others
Good	65-74	Discipline in carrying out tasks and Submission of analysis that can be well received by others
Fairly Good	60-64	Discipline in doing assignments Good and Presentation of analysis that can be accepted quite well by others
Enough	50-59	Discipline in doing assignments and submission of analysis that can be accepted quite well by others
Less	30-49	Less able to provide discipline in doing assignments and lack of delivery of analysis that can be accepted by others
Very Less	<30	Not able to provide discipline in doing assignments and lack of delivery of analysis that can be accepted by others

No.	Component	Weight (%)
1	Competency Test 1	25
2	Competency Test 2	25
3	Competency Test 3	25
4	Soft Skills	12.5
5	Assignments	12.5

Syllabus

Week	Session	Content
1	1	LEARNING CONTRACT
2	2	BASIC CONCEPTS OF REGRESSION ANALYSIS
3	3	TWO-VARIABLE REGRESSION MODEL: ESTIMATION PROBLEMS
4	**4**	Competence test
5	5	CLASSIC NORMAL LINEAR REGRESSION MODEL
6	6	TWO VARIABLE REGRESSION: INTERVAL ESTIMATION AND HYPOTHESIS TEST
7	**7**	MULTI-VARIABLE REGRESSION ANALYSIS ESTIMATION PROBLEMS

8	8	Competence test
9	9	MULTI-VARIABLE REGRESSION ANALYSIS INFERENCE PROBLEM
10	10	DUMMY VARIABLE REGRESSION MODEL
11	11	Applications In Economics and Business
12	12	Competence test
13	13	MULTICOLLINEARITY
14	14	HETEROCEDASTICITY
15	15	AUTOCORRELATION
16	16	Competence test