



## S I L A B U S

<b>Fakultas</b>	<b>: Ilmu Sosial dan Ekonomi</b>
<b>Jurusan/Program Studi</b>	<b>: Pendidikan Ekonomi</b>
<b>Mata Kuliah</b>	<b>: Ekonometri</b>
<b>Kode</b>	<b>:</b>
<b>SKS</b>	<b>: Teori : 02 Praktik : 0</b>
<b>Semester</b>	<b>: 7</b>
<b>Mata Kuliah Prasyarat</b>	<b>: Matematika Ekonomi II, Mikroekonomi, dan Makroekonomi</b>
<b>Dosen</b>	<b>: Bambang Suprayitno, S.E.</b>

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### I. Deskripsi Mata Kuliah

This lecture contains knowledge of economics measurement of economics theory and applied economics in its context. To accomplish the lecture require competency that achieving from lecture in basic economics or mathematics and statistics. This lecture gives the competency that can help the student to do research and finish the thesis.

### II. Standar Kompetensi

The student can apply measurement competency for basic economics theory and applied economics testing. Beside that, the student can also apply competency that received from Economics Mathematics and Statistics in applied economics theory.

### III. Sumber Bahan

#### A. Wajib

Gujarati, Damodar N., *Basic Econometrics*, (2004). 4<sup>th</sup> Edition. Singapore: Mc Graw-Hil. (called A)

#### B. Pendukung

-Hill, Carter, William Griffiths, and George Judge (1997). *Undergraduate Econometrics*. New York: John Wiley and Sons Ltd. (called B)

-Verbeek, Marno (2000). *A Guide to Modern Econometrics*. Chichester: John Wiley and Sons Ltd. (called C)

-Buku-buku, jurnal-jurnal, maupun bacaan lain yang sesuai dengan materi yang diberikan.



#### IV. Skema Pembelajaran

Pertemuan ke	Kompetensi Dasar	Materi Pokok	Kegiatan Pembelajaran	Sumber Bahan
1	<ul style="list-style-type: none"> <li>Knowing each other between lecturer and student</li> <li>Knowing the material</li> </ul>	<ul style="list-style-type: none"> <li>Contract in process learning</li> <li>Outlook lesson material</li> <li>Group diversion</li> </ul>	<ul style="list-style-type: none"> <li>Lecturer starts introducing his self and also asks the students to introduce their self.</li> <li>The lecturer has speech to explain content the material.</li> </ul>	A:Introduction
2	<ul style="list-style-type: none"> <li>To explain the core competency that required in econometrics</li> <li>To distinguish regression vs correlation and to explain source of data and data type used in econometrics</li> </ul>	<p><b>The Nature of Regression Analysis</b></p> <ol style="list-style-type: none"> <li>Terminology Regresi.</li> <li>Deterministik dan Statistik</li> <li>Regresi vs Korelasi</li> <li>Tipe data dan sumber data</li> </ol>	<ul style="list-style-type: none"> <li>The Group present the material had been plotted before.</li> <li>The Lecturer giving material and reviewing presentation.</li> <li>During the class every personnel allowed to discuss or criticize presentation</li> </ul>	A:CH.1
3	<ul style="list-style-type: none"> <li>To explain PRF and SRF</li> <li>To run Sample regression function.</li> </ul>	<p><b>Two Variable Regression Analysis</b></p> <ol style="list-style-type: none"> <li>Hypothetical Example</li> <li>The Concept of Population Regression Function (PRF).</li> <li>The Term "Linearity": L in variable and L Parameters.</li> <li>The Sample Regression Function (SRF).</li> </ol>	<ul style="list-style-type: none"> <li>The Group present the material had been plotted before.</li> <li>The Lecturer giving material and reviewing presentation.</li> <li>During the class every personnel allowed to discuss or criticize presentation</li> </ul> <p>Assignment:</p> <ol style="list-style-type: none"> <li>Every group has to look for data and run sample regression function.</li> </ol>	A:CH.2
4	<ul style="list-style-type: none"> <li>To explain the method of OLS and the assumption underlying it</li> </ul>	<p><b>Two Variable Regression Analysis: the Problem of Estimation</b></p> <ol style="list-style-type: none"> <li>The Method of ordinary least square (OLS)</li> <li>Assumption underlying the method of least square</li> <li>Properties of least square estimator</li> <li>The <b>coefficient of determination</b> <math>r^2</math> (two-variable case) or <math>R^2</math></li> </ol>	<ul style="list-style-type: none"> <li>The Group present the material had been plotted before.</li> <li>The Lecturer giving material and reviewing presentation.</li> <li>During the class every personnel allowed to discuss or criticize presentation</li> </ul>	A:CH.3



5	<ul style="list-style-type: none"> <li>To applied CNLR.</li> </ul>	<p>Classical Normal Linier Regression (CNLR):</p> <ol style="list-style-type: none"> <li>Normality assumption of U</li> <li>Properties of OLS estimator under normal assumption</li> <li>The method of maximum likelihood</li> </ol>	<ul style="list-style-type: none"> <li>The Group present the material had been plotted before.</li> <li>The Lecturer giving material and reviewing presentation.</li> <li>During the class every personnel allowed to discuss or criticize presentation</li> </ul>	A:CH.4
6	<ul style="list-style-type: none"> <li>To applied hypothesis testing and interval estimation in running OLS</li> </ul>	<p><b>Two variable regression: interval estimation and hypothesis testing</b></p> <ol style="list-style-type: none"> <li>Interval estimation: some basic ideas</li> <li>Confidence interval for estimator coefficient</li> <li>Hypothesis testing: confidence interval approach</li> <li>Hypothesis testing: test significance approach</li> <li>Hypothesis testing: some practical aspect</li> <li>Regression analysis and analysis variance</li> </ol>	<ul style="list-style-type: none"> <li>The Group present the material had been plotted before.</li> <li>The Lecturer giving material and reviewing presentation.</li> <li>During the class every personnel allowed to discuss or criticize presentation</li> </ul>	A:CH.5
7	<ul style="list-style-type: none"> <li>To diverse functional form and choice functional form</li> </ul>	<p><b>Extension of two variable regression:</b></p> <ol style="list-style-type: none"> <li>Regression through the origin</li> <li>Functional form: regression model</li> <li>Choice of functional form</li> </ol>	<ul style="list-style-type: none"> <li>The Group present the material had been plotted before.</li> <li>The Lecturer giving material and reviewing presentation.</li> <li>During the class every personnel allowed to discuss or criticize presentation</li> </ul>	A:CH.6
8	<ul style="list-style-type: none"> <li>To run multiple regression function</li> <li>To Interpret coefficient regression</li> </ul>	<p><b>Multiple Regression Analysis: Problem Estimation</b></p> <ol style="list-style-type: none"> <li>Multiple coefficient of determination</li> <li>R<sup>2</sup> and R<sup>2</sup> adjusted</li> </ol>	<ul style="list-style-type: none"> <li>The Group present the material had been plotted before.</li> <li>The Lecturer giving material and reviewing presentation.</li> <li>During the class every personnel allowed to discuss or criticize presentation</li> </ul>	A:CH.7
9	UTS			
10	<ul style="list-style-type: none"> <li>To implement interval estimation and hypothesis testing for models involveng more</li> </ul>	<p><b>Multiple Regression Analysis: Problem Inference</b></p> <ol style="list-style-type: none"> <li>Normality assumption</li> </ol>	<ul style="list-style-type: none"> <li>The Group present the material had been plotted before.</li> </ul>	A:CH.8



	than 2 variable	2. Hypothesis testing	<ul style="list-style-type: none"> <li>▪ The Lecturer giving material and reviewing presentation.</li> <li>▪ During the class every personnel allowed to discuss or criticize presentation</li> </ul>	
11	<ul style="list-style-type: none"> <li>• To carry out regression that involve dummy variable.</li> </ul>	<b>Dummy variable regression model:</b> <ol style="list-style-type: none"> <li>1. The nature of dummy variable</li> <li>2. Dummy qualitative variable</li> <li>3. Dummy qualitative and quantitative variable</li> <li>4. Alternative chow test</li> <li>5. Interaction variable</li> </ol>	<ul style="list-style-type: none"> <li>▪ The Group present the material had been plotted before.</li> <li>▪ The Lecturer giving material and reviewing presentation.</li> <li>▪ During the class every personnel allowed to discuss or criticize presentation</li> </ul>	A:CH.9
12	<ul style="list-style-type: none"> <li>• To explain multicollinearity and how to remedy it</li> </ul>	<b>Multicollinearity: What happened if variable correlated?:</b> <ol style="list-style-type: none"> <li>1. Nature of multicollinearity</li> <li>2. Estimation in the presence of multicollinearity</li> <li>3. Practical Consequences of multicollinearity</li> <li>4. Detection multicollinearity</li> <li>5. Remedial measure</li> </ol>	<ul style="list-style-type: none"> <li>▪ The Group present the material had been plotted before.</li> <li>▪ The Lecturer giving material and reviewing presentation.</li> <li>▪ During the class every personnel allowed to discuss or criticize presentation</li> </ul>	A:CH.10
13	<ul style="list-style-type: none"> <li>• To explain heteroscedasticity and how to remedy it</li> </ul>	<b>Heteroscedasticity: What happened presence variance is not constant</b> <ol style="list-style-type: none"> <li>1. The nature of heteroscedasticity</li> <li>2. Consequences of OLS in presence heteroscedasticity</li> <li>3. Detection heteroscedasticity</li> </ol>	<ul style="list-style-type: none"> <li>▪ The Group present the material had been plotted before.</li> <li>▪ The Lecturer giving material and reviewing presentation.</li> <li>▪ During the class every personnel allowed to discuss or criticize presentation</li> </ul>	A:CH.11
14	<ul style="list-style-type: none"> <li>• To explain autocorrelation and how to remedy it</li> </ul>	<b>Autocorrelation: what happened if the error term is correlated?</b> <ol style="list-style-type: none"> <li>1. the nature of autocorrelation</li> <li>2. the consequences OLS in the presence of autocorrelation</li> <li>3. detecting autocorrelation</li> <li>4. Remedial autorrrelation</li> </ol>	<ul style="list-style-type: none"> <li>▪ The Group present the material had been plotted before.</li> <li>▪ The Lecturer giving material and reviewing presentation.</li> <li>▪ During the class every personnel allowed to discuss or criticize presentation</li> </ul>	A:CH.12
15	<ul style="list-style-type: none"> <li>• To do econometrics modelling</li> </ul>	<b>Econometric Modelling: Specification error and diagnostic testing</b> <ol style="list-style-type: none"> <li>1.Types of specification error</li> </ol>	<ul style="list-style-type: none"> <li>▪ The Group present the material had been plotted before.</li> <li>▪ The Lecturer giving</li> </ul>	A: CH. 13



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FAKULTAS ILMU SOSIAL DAN EKONOMI

		2. Consequences of model specification error 3. Test of specification error	material and reviewing presentation. ▪ During the class every personnel allowed to discuss or criticize presentation Assignment: Every group has to look for data and run sample regression function.	
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**V. Komponen Penilaian**

No	Komponen Penilaian	Bobot (%)
1	Partisipasi kuliah	10%
2	Tugas	15%
3	Ujian tengah semester	30%
4	Ujian akhir semester	45%
	Jumlah	100 %

Mengetahui  
Ketua Jurusan

Daru Wahyuni, M.Si  
NIP19681109 1994 03 2001

Yogyakarta, 12 Februari 2012  
Dosen,

Bambang Suprayitno, M.Sc.  
NIP19760202 200604 1001