S I L A B U S

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

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
      (called A)
   B. Pendukung
        Econometrics. New York: John Wiley and Sons Ltd. (called B)
          and Sons Ltd. (called C)
      -Buku-buku, jurnal-jurnal, maupun bacaan lain yang sesuai dengan materi yang
        diberikan.
# IV. Skema Pembelajaran

<table>
<thead>
<tr>
<th>Peremuan ke</th>
<th>Kompetensi Dasar</th>
<th>Materi Pokok</th>
<th>Kegiatan Pembelajaran</th>
<th>Sumber Bahan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>• Knowing each other between lecturer n student</td>
<td>• Contract in process learning</td>
<td>▪ Lecturer starts introducing his self and also asks the students to introduce their self.</td>
<td>A: Introduction</td>
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<td></td>
<td>• Knowing the material</td>
<td>• Outlook lesson material</td>
<td>▪ The lecturer has speech to explain content the material.</td>
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<tr>
<td>2</td>
<td>• To explain the core competency that required in econometrics</td>
<td>• To distinguish regression vs correlation and to explain source of data n data type used in econometrics</td>
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<td></td>
<td>• To explain PRF and SRF</td>
<td>• The Nature of Regression Analysis</td>
<td>▪ The Group present the material had been plotted before.</td>
<td>A:CH.1</td>
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<td></td>
<td>• To run Sample regression function.</td>
<td>1. Terminology Regresi.</td>
<td>▪ The Lecturer giving material and reviewing presentation.</td>
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<td>2. Deterministik dan Statistik</td>
<td>▪ During the class every personnel allowed to discuss or criticize presentation</td>
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<td>3. Regresi vs Korelasi</td>
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<td>4. Tipe data dan sumber data</td>
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<td>3</td>
<td>• To explain PRF and SRF</td>
<td>• Two Variable Regression Analysis</td>
<td>▪ The Group present the material had been plotted before.</td>
<td>A:CH.2</td>
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<td>• To run Sample regression function.</td>
<td>1. Hypothetical Example</td>
<td>▪ The Lecturer giving material and reviewing presentation.</td>
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<td>2. The Concept of Population Regression Function (PRF).</td>
<td>▪ During the class every personnel allowed to discuss or criticize presentation</td>
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<td>3. The Term “Linearity”: L in variable and L Parameters.</td>
<td>Assignment:</td>
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<td>4. The Sample Regression Function (SRF).</td>
<td>1. Every group has to look for data and run sample regression function.</td>
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<td>4</td>
<td>• To explain the method of OLS and the assumption underlying it</td>
<td>• Two Variable Regression Analysis: the Problem of Estimation</td>
<td>▪ The Group present the material had been plotted before.</td>
<td>A:CH.3</td>
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<td>1. The Method of ordinary least square (OLS)</td>
<td>▪ The Lecturer giving material and reviewing presentation.</td>
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<td>2. Assumption underlying the method of least square</td>
<td>▪ During the class every personnel allowed to discuss or criticize presentation</td>
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<td>3. Properties of least square estimator</td>
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<td>4. The coefficient of determination $r^2$ (two-variable case) or $R^2$</td>
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| 5 | **To applied CNLR.**  
Classical Normal Linear Regression (CNLR):  
1. Normality assumption of U  
2. Properties of OLS estimator under normal assumption  
3. The method of maximum likelihood |
| | A:CH.4  
• The Group present the material had been plotted before.  
• The Lecturer giving material and reviewing presentation.  
• During the class every personnel allowed to discuss or criticize presentation |
| 6 | **To applied hypothesis testing and interval estimation in running OLS**  
Two variable regression: interval estimation and hypothesis testing  
1. Interval estimation: some basic ideas  
2. Confidence interval for estimator coefficient  
3. Hypothesis testing: confidence interval approach  
4. Hypothesis testing: test significance approach  
5. Hypothesis testing: some practical aspect  
6. Regression analysis and analysis variance |
| | A:CH.5  
• The Group present the material had been plotted before.  
• The Lecturer giving material and reviewing presentation.  
• During the class every personnel allowed to discuss or criticize presentation |
| 7 | **To diverse functional form and choice functional form**  
Extension of two variable regression:  
1. Regression through the origin  
2. Functional form: regression model  
3. Choice of functional form |
| | A:CH.6  
• The Group present the material had been plotted before.  
• The Lecturer giving material and reviewing presentation.  
• During the class every personnel allowed to discuss or criticize presentation |
| 8 | **To run multiple regression function**  
**To Interpret coefficient regression**  
Multiple Regression Analysis: Problem Estimation  
1. Multiple coefficient of determination  
2. R2 and R2 adjusted |
| | A:CH.7  
• The Group present the material had been plotted before.  
• The Lecturer giving material and reviewing presentation.  
• During the class every personnel allowed to discuss or criticize presentation |
| 9 | **UTS** |
| 10 | **To implement interval estimation and hypothesis testing for models unvolving more**  
Multiple Regression Analysis: Problem Inference  
1. Normality assumption |
| | A:CH.8  
• The Group present the material had been plotted before. |
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</table>
| 11 | To carry out regression that involve dummy variable. | **Dummy variable regression model:**  
1. The nature of dummy variable  
2. Dummy qualitative variable  
3. Dummy qualitative and quantitative variable  
4. Alternative chow test  
5. Interaction variable | The Group present the material had been plotted before.  
The Lecturer giving material and reviewing presentation.  
During the class every personnel allowed to discuss or criticize presentation  
A: CH. 9 |
| 12 | To explain multicollinearity and how to remedy it | **Multicollinearity: What happened if variable correlated?**  
1. Nature of multicollinearity  
2. Estimation in the presence of multicollinearity  
3. Practical Consequences of multicollinearity  
4. Detection multicollinearity  
5. Remedial measure | The Group present the material had been plotted before.  
The Lecturer giving material and reviewing presentation.  
During the class every personnel allowed to discuss or criticize presentation  
A: CH. 10 |
| 13 | To explain heteroscedasticity and how to remedy it | **Heteroscedasticity: What happened presence variance is not constant**  
1. The nature of heteroscedasticity  
2. Consequences of OLS in presence heteroscedasticity  
3. Detection heteroscedasticity | The Group present the material had been plotted before.  
The Lecturer giving material and reviewing presentation.  
During the class every personnel allowed to discuss or criticize presentation  
A: CH. 11 |
| 14 | To explain autocorrelation and how to remedy it | **Autocorrelation: what happened if the error term is correlated?**  
1. The nature of autocorrelation  
2. The consequences OLS in the presence of autocorrelation  
3. Detecting autocorrelation  
4. Remedial autorrelation | The Group present the material had been plotted before.  
The Lecturer giving material and reviewing presentation.  
During the class every personnel allowed to discuss or criticize presentation  
A: CH. 12 |
| 15 | To do econometrics modelling | **Econometric Modelling: Specification error and diagnostic testing**  
1. Types of specification error | The Group present the material had been plotted before.  
The Lecturer giving  
A: CH. 13 |
2. Consequences of model specification error
3. Test of specification error

<table>
<thead>
<tr>
<th>Material and reviewing presentation.</th>
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<td>Assignment: Every group has to look for data and run sample regression function.</td>
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### V. Komponen Penilaian

<table>
<thead>
<tr>
<th>No</th>
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<tr>
<td>1</td>
<td>Partisipasi kuliah</td>
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<tr>
<td>2</td>
<td>Tugas</td>
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</tr>
<tr>
<td>3</td>
<td>Ujian tengah semester</td>
<td>30%</td>
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<tr>
<td>4</td>
<td>Ujian akhir semester</td>
<td>45%</td>
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<td><strong>Jumlah</strong></td>
<td><strong>100 %</strong></td>
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Mengetahui

Yogyakarta, 12 Februari 2012

Dosen,

Daru Wahyuni, M.Si
NIP19681109 1994 03 2001

Bambang Suprayitno, M.Sc.
NIP19760202 200604 1001