TEACHING-LEARNING CONTRACT
LEARNING PROGRAM OUTLINE
LEARNING UNIT PROGRAM

ECONOMETRICS
PAS 121

STATISTICS STUDY PROGRAM OF MATHEMATICS DEPARTMENT
MATHEMATICS AND SCIENCE FACULTY
DIPONEGORO UNIVERSITY
SEMARANG
2007
TEACHING-LEARNING CONTRACT

Course : Econometrics
Code : PAS 121
Credit : 3
Semester : VI

1. Course Advantage

This course is given to introducing some concepts, definitions, and economics model that is used in Econometrics Theory and Analysis.

2. Course Description

This course explains about basics macro economics analysis. After understanding the basics economics science, the students are given the basics, concepts, and application of Econometrics Theory.

3. General Instructional Aim

After studying this course, the student are expected to be able to: explain the basics of linear regression model and analysis; relaxing the assumption of linear regression model: multicollinearity, heteroscedasticity, and autocorrelation; Regression with Lagged Dependent Variables; Regression with Dummy Variables: Independent and Dependent Dummy Variables; and Simultaneous Equation Modelling.

4. Lecture Strategic

This lecturing uses four teaching methods, these are lecturing, discuss, presentation, and practice at computer laboratory. Lecturing is given to explain the basic theories and followed by discussing some examples that illustrates its applications. To enrich knowledge, group task will be presented in the class, and students will be discussion intensively. And for giving computer skills on econometrics analysis, students practice some econometrics problems with EViews software.

5. Reference


6. **Scoring Criteria**

Criteria of scoring in this course is

<table>
<thead>
<tr>
<th>Grade</th>
<th>Score</th>
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<tbody>
<tr>
<td>A</td>
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<td>CD</td>
<td>1.5</td>
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<td>D</td>
<td>1.0</td>
</tr>
<tr>
<td>E</td>
<td>0.0</td>
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</tbody>
</table>

Scoring in this course title consist of three component, that is task, quiz, and examination. Examination will be held twice, that is mid-term and final exam. Midterm exam is arranged after seventh lecturing, while final exam item is arranged after fourteenth lecturing. Tasks consist of individual task and group task. Quiz is unscheduled programs. Task will be given for two ways, these are individual task and group task.

Final score decision is based on this scoring indicator such as:

<table>
<thead>
<tr>
<th>No.</th>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>1</td>
<td>Quiz</td>
<td>10 %</td>
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<tr>
<td>2</td>
<td>Group Task and Individual Task</td>
<td>20 %</td>
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<td>3</td>
<td>Midterm</td>
<td>30 %</td>
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<td>4</td>
<td>Final Exam</td>
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<td><strong>TOTAL</strong></td>
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7. **Lecture Schedule**

<table>
<thead>
<tr>
<th>Week</th>
<th>Material</th>
<th>Reference</th>
</tr>
</thead>
</table>
| 1 | Simple Linear Regression Analysis | Greene, Chapter 5, 140  
Gujarati, Chapter 1, 11  
Sumodiningrat, Chapter 5, 97 |
| 2 | Multiple Regression Analysis | Greene, Chapter 6, 170  
Gujarati, Chapter 6, 91  
Sumodiningrat, Chapter 7, 169 |
| 3 | The Matrix Approach to Linear Regression Model | Gujarati, Chapter 8, 130  
Sumodiningrat, Chapter 7.6, 192 |
| 4 | Relaxing the Assumptions of Classical Model: Multicollinearity | Greene, Chapter 9, 266  
Gujarati, Chapter 9, 157  
Sumodiningrat, Chapter 10, 281 |
| 5 | Relaxing the Assumptions of Classical Model: Heteroscedasticity | Greene, Chapter 14, 384  
Gujarati, Chapter 10, 177  
Sumodiningrat, Chapter 9.2, 261 |
| 6 | Relaxing the Assumptions of Classical Model: Autocorrelation Task I (Individual Task) | Greene, Chapter 15, 411  
Gujarati, Chapter 11, 201  
Sumodiningrat, Chapter 9.1, 231 |
| 7 | Computation Practice I: Multicollinearity, Heteroscedasticity, Autocorrelation | Maruddani, Modul 1, 2,  
dan 3, 1  
-----, Chapter 8, 147 |
| 8 | Midterm | |
| 9 | Autoregressive Models dan Distributed Lag Models | Greene, Chapter 18, 511  
Gujarati, Chapter 12, 233  
Manurung, Chapter 15, hal 225  
Sumodiningrat, Chapter 10.3, hal 306 |
| 10 | Computation Practice II: Autoregressive Models dan Distributed Lag Models Task II (Group Task) | Maruddani, Modul 3, 9  
-----, Chapter 8, 147 |
| 11 | Regression on Dummy Variables Group Presentation | Gujarati, Chapter 13 dan 14, hal 263  
Manurung, Chapter 7, hal 85  
Sumodiningrat, Chapter 10.3, hal 306 |
| 12 | Regression on Dummy Dependent Variables Group Presentation II | Gujarati, Chapter 13 dan 14, hal 263  
Manurung, Chapter 7, hal 85  
Sumodiningrat, Chapter 10.3, hal 306 |
| 13 | Simultaneous Equation Models Group Presentation | Greene, Chapter 20, hal 578 |
|   |   | Gujarati, Chapter 16, hal 307  
|   |   | Lains, Chapter 4, 243  
|   |   | Manurung, Chapter 16, hal 247  
| 14 | Computation Practice III: Regression on Dummy Dependent Variables | Maruddani, Modul 5, 17  
|   |   | -----, Chapter 10, 187 dan Chapter 13, hal 275  
| 15 | Computation Practice IV: Test |   
| 16 | Final Exam |   |
LEARNING PROGRAM OUTLINE

Course Title : Econometrics
Code / Credit : PAS 121 / 2
Course Description : This course explains about basics macro economics analysis. After understanding the basics economics science, the students are given the basics, concepts, and application of Econometrics Theory.

General Instructional Aim : After studying this course, the student are expected to be able to: explain the basics of linear regression model and analysis; relaxing the assumption of linear regression model : multicollinearity, heteroscedasticity, and autocorrelation; Regression with Lagged Dependent Variables; Regression with Dummy Variables : Independent and Dependent Dummy Variables; and Simultaneous Equation Modelling.

<table>
<thead>
<tr>
<th>No.</th>
<th>Specific Instructional Aim</th>
<th>Subject</th>
<th>Sub Subject</th>
<th>Duration</th>
<th>References</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>After studying this course, students are expected to have ability to explain about the concepts of Simple Linear Regression Model and analysis, and be able to explain about classical assumption at Simple Linear Regression Model</td>
<td>Simple Linear Regression Analysis</td>
<td>• Simple Linear Regression Model • Simple Linear Regression Analysis • Classical Assumption • OLS and ML Estimation</td>
<td>150 minutes</td>
<td>Greene, Chapter 5, 140 Gujarati, Chapter 1, 11 Sumodiningrat, Chapter 5, 97</td>
</tr>
<tr>
<td>2</td>
<td>After studying this course, students are expected to have ability to: explain some basics definitions of GNP and GDP</td>
<td>Multiple Regression Analysis</td>
<td>• Notation and Assumption • Partial Regression Coefficient • Multiple Coefficient of Determination • Partial Correlation</td>
<td>150 minutes</td>
<td>Greene, Chapter 6, 170 Gujarati, Chapter 6, 91 Sumodiningrat, Chapter 7, 169</td>
</tr>
<tr>
<td>Step</td>
<td>Activity Description</td>
<td>Coefficient</td>
<td>Duration</td>
<td>References</td>
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</tr>
<tr>
<td>3</td>
<td>After studying this course, students are expected to have ability to: explain consumption, investment, tax, export-import, inflationary and deflationary gap</td>
<td>The Matrix Approach to Linear Regression Model</td>
<td>Consumption, Investment, Tax, Export and Import, Inflationary Gap and Deflationary Gap</td>
<td>300 minutes</td>
<td>Gujarati, Chapter 8, 130 Sumodiningrat, Chapter 7.6, 192</td>
</tr>
<tr>
<td>4</td>
<td>After studying this course, students are expected to have ability to: explain consumption function</td>
<td>Relaxing the Assumptions of Classical Model: Multicollinearity</td>
<td>Consumption Function</td>
<td>150 minutes</td>
<td>Greene, Chapter 9, 266 Gujarati, Chapter 9, 157 Sumodiningrat, Chapter 10, 281</td>
</tr>
<tr>
<td>5</td>
<td>After studying this course, students are expected to have ability to: explain investment function and variables that influenced investment function</td>
<td>Relaxing the Assumptions of Classical Model: Heteroscedasticity</td>
<td>Investment Function, Investment Function Variables</td>
<td>300 minutes</td>
<td>Greene, Chapter 14, 384 Gujarati, Chapter 10, 177 Sumodiningrat, Chapter 9.2, 261</td>
</tr>
<tr>
<td>6</td>
<td>After studying this course, students are expected to have ability to: explain money demand and supply, and monetary policy</td>
<td>Relaxing the Assumptions of Classical Model: Autocorrelation Task I (Individual Task)</td>
<td>Money Demand, Money Supply, Monetary Policy</td>
<td>300 minutes</td>
<td>Greene, Chapter 15, 411 Gujarati, Chapter 11, 201 Sumodiningrat, Chapter 9.1, 231</td>
</tr>
<tr>
<td>7</td>
<td>After studying this course, students are expected to have ability to: explain money market and goods market</td>
<td>Autoregressive Models dan Distributed Lag Models</td>
<td>Money Market, Goods Market</td>
<td>150 minutes</td>
<td>Greene, Chapter 18, 511 Gujarati, Chapter 12, 233 Manurung, Chapter 15, hal 225 Sumodiningrat, Chapter 10.3, hal 306</td>
</tr>
<tr>
<td>8</td>
<td>After studying this course, Regression on</td>
<td>IS Analysis</td>
<td>150 minutes</td>
<td>Gujarati,</td>
<td></td>
</tr>
<tr>
<td>Topic</td>
<td>Methodology</td>
<td>Time</td>
<td>References</td>
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<tr>
<td>9 After studying this course, students are expected to have ability to: explain worker market and minimum salary policy</td>
<td>Regression on Dummy Dependent Variables</td>
<td>300 minutes</td>
<td>Gujarati, Chapter 13 dan 14, hal 263 Manurung, Chapter 7, hal 85 Sumodiningrat, Chapter 10.3, hal 306</td>
<td></td>
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</tr>
<tr>
<td>10 After studying this course, students are expected to have ability to: explain aggregation demand and supply</td>
<td>Simultaneous Equation Models</td>
<td>150 minutes</td>
<td>Greene, Chapter 20, hal 578 Gujarati, Chapter 16, hal 307 Lains, Chapter 4, 243 Manurung, Chapter 16, hal 247</td>
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</tr>
</tbody>
</table>

References
LEARNING UNIT PROGRAM

COURSE TITLE: ECONOMETRICS
CODE / CREDIT: PAS 121 / 3 SKS
DURATION: 150 MINUTES
WEEK: 1

A. INSTRUCTIONAL AIM:

1. GENERAL: After studying this course, the student are expected to be able to:
   explain the basics of linear regression model and analysis; relaxing
   the assumption of linear regression model: multicollinearity,
   heteroscedasticity, and autocorrelation; Regression with Lagged
   Dependent Variables; Regression with Dummy Variables:
   Independent and Dependent Dummy Variables; and Simultaneous
   Equation Modelling.

2. SPECIFIC: After studying this course, students are expected to have ability to
   explain about the concepts of Simple Linear Regression Model and
   analysis, and be able to explain about classical assumption at
   Simple Linear Regression Model

B. SUBJECT: Simple Linear Regression
C. SUB SUBJECT: Simple Linear Regression Model and Analysis, Classical Assumption,
   OLS and ML Estimation

D. TEACHING-LEARNING ACTIVITIES

<table>
<thead>
<tr>
<th>STAGE</th>
<th>LECTURER ACTIVITIES</th>
<th>STUDENT ACTIVITIES</th>
<th>LEARNING MEDIA</th>
</tr>
</thead>
</table>
| INTRODUCTION | ▪ Describing about matter at the 1st meeting
          ▪ Describing about general and specific objectives competence | Observing and taking notes | OHP, transpareny, white board, reference books, and papers |
| PRESENTATION | ▪ Explaining about the concepts of Simple Linear Regression Model and analysis, and be able to explain about classical assumption at Simple Linear Regression Model
          ▪ Giving examples as a study case | Observing, asking, taking notes | OHP, transpareny, white board, reference books, and papers |
| CLOSING   | ▪ Discussion                                          | Discuss,                 | white board and |
|          |                                                       |                          | papers         |
E. EVALUATION

- Giving some problems as a homework
- Giving description about matter on the next meeting
- asking, observing, taking notes
- papers

F. REFERENCE

LEARNING UNIT PROGRAM

COURSE TITLE: ECONOMETRICS
CODE / CREDIT: PAS 121 / 3 SKS
DURATION: 150 MINUTES
WEEK: 2

A. INSTRUCTIONAL AIM:

1. GENERAL: After studying this course, the student are expected to be able to:
   explain the basics of linear regression model and analysis, relaxing
   the assumption of linear regression model: multicollinearity,
   heteroscedasticity, and autocorrelation; Regression with Lagged
   Dependent Variables; Regression with Dummy Variables:
   Independent and Dependent Dummy Variables; and Simultaneous
   Equation Modelling.

2. SPECIFIC: After studying this course, students are expected to have ability to:
   explain some basics definitions of GNP and GDP

B. SUBJECT: Gross National Product and Gross Domestic Product
C. SUB SUBJECT: Gross National Product and Gross Domestic Product

D. TEACHING-LEARNING ACTIVITIES

<table>
<thead>
<tr>
<th>STAGE</th>
<th>LECTURER ACTIVITIES</th>
<th>STUDENT ACTIVITIES</th>
<th>LEARNING MEDIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION</td>
<td>▪ Describing about matter at the 1st meeting</td>
<td>Observing and taking notes</td>
<td>OHP, transparancy, white board,</td>
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<tr>
<td></td>
<td>▪ Describing about general and specific objectives competence</td>
<td></td>
<td>reference books, and papers</td>
</tr>
<tr>
<td>PRESENTATION</td>
<td>▪ Explaining about Problems and Calculation on GNP and GDP</td>
<td>Observing, asking, taking notes</td>
<td>OHP, transparancy, white board,</td>
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<td></td>
<td>▪ Giving examples as a study case</td>
<td></td>
<td>reference books, and papers</td>
</tr>
<tr>
<td>CLOSING</td>
<td>▪ Discussion</td>
<td>Discuss, asking, observing, taking notes</td>
<td>white board and papers</td>
</tr>
<tr>
<td></td>
<td>▪ Giving some problems as a homework</td>
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<tr>
<td></td>
<td>▪ Giving description about matter on the next meeting</td>
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E. EVALUATION: From the discussion, teacher can evaluate student’s ability of understanding the theory.
F. REFERENCE


# LEARNING UNIT PROGRAM

**COURSE TITLE**: ECONOMETRICS  
**CODE / CREDIT**: PAS 121 / 3 SKS  
**DURATION**: 150 MINUTES  
**WEEK**: 3  

## A. INSTRUCTIONAL AIM:

1. **GENERAL**: After studying this course, the student are expected to be able to: explain the basics of linear regression model and analysis; relaxing the assumption of linear regression model: multicollinearity, heteroscedasticity, and autocorrelation; Regression with Lagged Dependent Variables; Regression with Dummy Variables: Independent and Dependent Dummy Variables; and Simultaneous Equation Modelling.

2. **SPECIFIC**: After studying this course, students are expected to have ability to: explain consumption, investment, tax, export-import, inflationary and deflationary gap

## B. SUBJECT:  
**Determination of Gross National Product**

## C. SUB SUBJECT:  
**Consumption, Investment**

## D. TEACHING-LEARNING ACTIVITIES

<table>
<thead>
<tr>
<th>STAGE</th>
<th>LECTURER ACTIVITIES</th>
<th>STUDENT ACTIVITIES</th>
<th>LEARNING MEDIA</th>
</tr>
</thead>
</table>
| INTRODUCTION| ▪ Describing about matter at the 1st meeting  
                          ▪ Describing about general and specific objectives competence | Observing and taking notes       | OHP, transparancy, white board, reference books, and papers |
| PRESENTATION| ▪ Explaining about determination of GNP  
                          ▪ Giving examples as a study case | Observing, asking, taking notes | OHP, transparancy, white board, reference books, and papers |
| CLOSING     | ▪ Discussion  
                          ▪ Giving some problems as a homework  
                          ▪ Giving description about matter on the next meeting | Discuss, asking, observing, taking notes | white board and papers |
E. EVALUATION: From the discussion, teacher can evaluate student’s ability of understanding the theory.

F. REFERENCE:
LEARNING UNIT PROGRAM

COURSE TITLE : ECONOMETRICS
CODE / CREDIT : PAS 121 / 3 SKS
DURATION : 150 MINUTES
WEEK : 4

A. INSTRUCTIONAL AIM :

1. GENERAL : After studying this course, the student are expected to be able to:
   explain the basics of linear regression model and analysis; relaxing
   the assumption of linear regression model : multicollinearity,
   heteroscedasticity, and autocorrelation; Regression with Lagged
   Dependent Variables; Regression with Dummy Variables :
   Independent and Dependent Dummy Variables; and Simultaneous
   Equation Modelling.

2. SPECIFIC : After studying this course, students are expected to have ability to:
   explain consumption, investment, tax, export-import, inflationary
   and deflationary gap

B. SUBJECT : Determination of Gross National Product

C. SUB SUBJECT : Tax, Export-Import, Inflationary and Deflationary Gap

D. TEACHING-LEARNING ACTIVITIES

<table>
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<tr>
<th>STAGE</th>
<th>LECTURER ACTIVITIES</th>
<th>STUDENT ACTIVITIES</th>
<th>LEARNING MEDIA</th>
</tr>
</thead>
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<tr>
<td>INTRODUCTION</td>
<td>Describing about matter at the 1st meeting</td>
<td>Observing and taking notes</td>
<td>OHP, transparancy, white board,</td>
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<td></td>
<td>Describing about general and specific objectives competence</td>
<td></td>
<td>reference books, and papers</td>
</tr>
<tr>
<td>PRESENTATION</td>
<td>Explaining about determination of GNP</td>
<td>Observing, asking, taking  notes</td>
<td>OHP, transparancy, white board,</td>
</tr>
<tr>
<td></td>
<td>Giving examples as a study case</td>
<td></td>
<td>reference books, and papers</td>
</tr>
<tr>
<td>CLOSING</td>
<td>Discussion</td>
<td>Discuss, asking, observing,</td>
<td>white board and papers</td>
</tr>
<tr>
<td></td>
<td>Giving some problems as a homework</td>
<td>taking notes</td>
<td></td>
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<tr>
<td></td>
<td>Giving description about matter on the next meeting</td>
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</table>
E. EVALUATION: From the discussion, teacher can evaluate student's ability of understanding the theory.

F. REFERENCE:
LEARNING UNIT PROGRAM

COURSE TITLE : ECONOMETRICS
CODE / CREDIT : PAS 121 / 3 SKS
DURATION : 150 MINUTES
WEEK : 5

A. INSTRUCTIONAL AIM :

1. GENERAL : After studying this course, the student are expected to be able to:
   explain the basics of linear regression model and analysis; relaxing
   the assumption of linear regression model : multicollinearity,
   heteroscedasticity, and autocorrelation; Regression with Lagged
   Dependent Variables; Regression with Dummy Variables : Independent and Dependent Dummy Variables; and Simultaneous
   Equation Modelling.

2. SPECIFIC : After studying this course, students are expected to have ability to:
   explain consumption function

B. SUBJECT : consumption function
C. SUB SUBJECT : consumption function

D. TEACHING-LEARNING ACTIVITIES

<table>
<thead>
<tr>
<th>STAGE</th>
<th>LECTURER ACTIVITIES</th>
<th>STUDENT ACTIVITIES</th>
<th>LEARNING MEDIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION</td>
<td>▪ Describing about matter at the 1st meeting</td>
<td>Observing and taking notes</td>
<td>OHP, transparancy, white board, reference books, and papers</td>
</tr>
<tr>
<td></td>
<td>▪ Describing about general and specific objectives competence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRESENTATION</td>
<td>▪ Explaining about determination of Consumption Function</td>
<td>Observing, asking, taking notes</td>
<td>OHP, transparancy, white board, reference books, and papers</td>
</tr>
<tr>
<td></td>
<td>▪ Giving examples as a study case</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLOSING</td>
<td>▪ Discussion</td>
<td>Discuss, asking, observing, taking notes</td>
<td>white board and papers</td>
</tr>
<tr>
<td></td>
<td>▪ Giving some problems as a homework</td>
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<td>▪ Giving description about matter on the next meeting</td>
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</table>
E. EVALUATION : From the discussion, teacher can evaluate student’s ability of understanding the theory.


LEARNING UNIT PROGRAM

COURSE TITLE : ECONOMETRICS
CODE / CREDIT : PAS 121 / 3 SKS
DURATION : 150 MINUTES
WEEK : 6

A. INSTRUCTIONAL AIM:

1. GENERAL : After studying this course, the student are expected to be able to: explain the basics of linear regression model and analysis; relaxing the assumption of linear regression model : multicollinearity, heteroscedasticity, and autocorrelation; Regression with Lagged Dependent Variables; Regression with Dummy Variables : Independent and Dependent Dummy Variables; and Simultaneous Equation Modelling.

2. SPECIFIC : After studying this course, students are expected to have ability to: explain investment function and variables that influenced investment function

B. SUBJECT : Investment Function
C. SUB SUBJECT : Investment Function

D. TEACHING-LEARNING ACTIVITIES

<table>
<thead>
<tr>
<th>STAGE</th>
<th>LECTURER ACTIVITIES</th>
<th>STUDENT ACTIVITIES</th>
<th>LEARNING MEDIA</th>
</tr>
</thead>
</table>
| INTRODUCTION | ▪ Describing about matter at the 1st meeting  
▪ Describing about general and specific objectives competence | Observing and taking notes | OHP, transparancy, white board, reference books, and papers |
| PRESENTATION  | ▪ Explaining about determination of Investment Function  
▪ Giving examples as a study case | Observing, asking, taking notes | OHP, transparancy, white board, reference books, and papers |
| CLOSING     | ▪ Discussion  
▪ Giving some problems as a homework  
▪ Giving description about matter on the next meeting | Discuss, asking, observing, taking notes | white board and papers |
E. EVALUATION : From the discussion, teacher can evaluate student’s ability of understanding the theory.


# LEARNING UNIT PROGRAM

**COURSE TITLE**: ECONOMETRICS  
**CODE / CREDIT**: PAS 121 / 3 SKS  
**DURATION**: 150 MINUTES  
**WEEK**: 7  

### A. INSTRUCTIONAL AIM:

1. **GENERAL**: After studying this course, the student are expected to be able to: explain the basics of linear regression model and analysis; relaxing the assumption of linear regression model: multicollinearity, heteroscedasticity, and autocorrelation; Regression with Lagged Dependent Variables; Regression with Dummy Variables; Independent and Dependent Dummy Variables; and Simultaneous Equation Modelling.

2. **SPECIFIC**: After studying this course, students are expected to have ability to: explain investment function and variables that influenced investment function.

### B. SUBJECT: Investment Function

### C. SUB SUBJECT: Variables in Investment Function

### D. TEACHING-LEARNING ACTIVITIES

<table>
<thead>
<tr>
<th>STAGE</th>
<th>LECTURER ACTIVITIES</th>
<th>STUDENT ACTIVITIES</th>
<th>LEARNING MEDIA</th>
</tr>
</thead>
</table>
| INTRODUCTION| - Describing about matter at the 1st meeting  
                          - Describing about general and specific objectives competence | Observing and taking notes       | OHP, transparancy, white board, reference books, and papers |
| PRESENTATION| - Explaining about determination of Investment Function  
                          - Giving examples as a study case | Observing, asking, taking notes   | OHP, transparancy, white board, reference books, and papers |
| CLOSING     | - Discussion  
                          - Giving some problems as a homework  
                          - Giving description about matter on the next meeting | Discuss, asking, observing, taking notes | white board and papers |


E. EVALUATION: From the discussion, teacher can evaluate student’s ability of understanding the theory.

F. REFERENCE:


LEARNING UNIT PROGRAM

COURSE TITLE : ECONOMETRICS
CODE / CREDIT : PAS 121 / 3 SKS
DURATION : 150 MINUTES
WEEK : 9

A. INSTRUCTIONAL AIM :

1. GENERAL : After studying this course, the student are expected to be able to:
explain the basics of linear regression model and analysis; relaxing
the assumption of linear regression model : multicollinearity,
heteroscedasticity, and autocorrelation; Regression with Lagged
Dependent Variables; Regression with Dummy Variables : Independent and Dependent Dummy Variables; and Simultaneous
Equation Modelling.

2. SPECIFIC : After studying this course, students are expected to have ability to:
explain money demand and supply, and monetary policy

B. SUBJECT : Money Demand and Supply
C. SUB SUBJECT : Money Demand and Money Supply

D. TEACHING-LEARNING ACTIVITIES

<table>
<thead>
<tr>
<th>STAGE</th>
<th>LECTURER ACTIVITIES</th>
<th>STUDENT ACTIVITIES</th>
<th>LEARNING MEDIA</th>
</tr>
</thead>
</table>
| INTRODUCTION | - Describing about matter at the 1st meeting  
- Describing about general and specific objectives competence | Observing and taking notes | OHP, transparency, white board, reference books, and papers |
| PRESENTATION | - Explaining about determination of Money Demand and Supply  
- Giving examples as a study case | Observing, asking, taking notes | OHP, transparency, white board, reference books, and papers |
| CLOSING | - Discussion  
- Giving some problems as a homework  
- Giving description about matter on the next meeting | Discuss, asking, observing, taking notes | white board and papers |
E. EVALUATION

: From the discussion, teacher can evaluate student’s ability of understanding the theory.

F. REFERENCE


LEARNING UNIT PROGRAM

COURSE TITLE : ECONOMETRICS
CODE / CREDIT : PAS 121 / 3 SKS
DURATION : 150 MINUTES
WEEK : 10

A. INSTRUCTIONAL AIM :

1. GENERAL : After studying this course, the student are expected to be able to: explain the basics of linear regression model and analysis; relaxing the assumption of linear regression model : multicollinearity, heteroscedasticity, and autocorrelation; Regression with Lagged Dependent Variables; Regression with Dummy Variables; Independent and Dependent Dummy Variables; and Simultaneous Equation Modelling.

2. SPECIFIC : After studying this course, students are expected to have ability to: explain money demand and supply, and monetary policy

B. SUBJECT : Money Demand and Supply
C. SUB SUBJECT : Monetary Policy

D. TEACHING-LEARNING ACTIVITIES

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<tr>
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<th>STUDENT ACTIVITIES</th>
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</thead>
</table>
| INTRODUCTION | ▪ Describing about matter at the 1st meeting  
▪ Describing about general and specific objectives competence | Observing and taking notes | OHP, transperancy, white board, reference books, and papers |
| PRESENTATION | ▪ Explaining about determination of Money Demand and Supply  
▪ Giving examples as a study case | Observing, asking, taking notes | OHP, transperancy, white board, reference books, and papers |
| CLOSING | ▪ Discussion  
▪ Giving some problems as a homework  
▪ Giving description about matter on the next meeting | Discuss, asking, observing, taking notes | white board and papers |
E. EVALUATION: From the discussion, teacher can evaluate student's ability of understanding the theory.

F. REFERENCE:
LEARNING UNIT PROGRAM

COURSE TITLE : ECONOMETRICS
CODE / CREDIT : PAS 121 / 3 SKS
DURATION : 150 MINUTES
WEEK : 11

A. INSTRUCTIONAL AIM :

1. GENERAL : After studying this course, the student are expected to be able to:
   explain the basics of linear regression model and analysis; relaxing
   the assumption of linear regression model : multicollinearity,
   heteroscedasticity, and autocorrelation; Regression with Lagged
   Dependent Variables; Regression with Dummy Variables :
   Independent and Dependent Dummy Variables; and Simultaneous
   Equation Modelling.

2. SPECIFIC : After studying this course, students are expected to have ability to:
   explain money market and goods market

B. SUBJECT : Money Market and Goods Market
C. SUB SUBJECT : Money Market and Goods Market

D. TEACHING-LEARNING ACTIVITIES

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<tr>
<td>INTRODUCTION</td>
<td>• Describing about matter at the lst meeting</td>
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</tr>
<tr>
<td></td>
<td>• Describing about general and specific objectives competence</td>
<td></td>
<td>reference books, and papers</td>
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<td>PRESENTATION</td>
<td>• Explaining about determination of Money Market and Goods Market</td>
<td>Observing, asking, taking notes</td>
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<td>• Discussion</td>
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<td></td>
<td>• Giving description about matter on the next meeting</td>
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E. EVALUATION

From the discussion, teacher can evaluate student's ability of understanding the theory.

F. REFERENCE


LEARNING UNIT PROGRAM

COURSE TITLE: ECONOMETRICS
CODE / CREDIT: PAS 121 / 3 SKS
DURATION: 150 MINUTES
WEEK: 12

A. INSTRUCTIONAL AIM:

1. GENERAL: After studying this course, the student are expected to be able to:
   - explain the basics of linear regression model and analysis; relaxing
   - the assumption of linear regression model: multicollinearity,
   - heteroscedasticity, and autocorrelation; Regression with Lagged
   - Dependent Variables; Regression with Dummy Variables;
   - Independent and Dependent Dummy Variables; and Simultaneous
   - Equation Modelling.

2. SPECIFIC: After studying this course, students are expected to have ability to:
   - explain IS and LM analysis

B. SUBJECT: IS and LM Analysis
C. SUB SUBJECT: IS and LM Analysis

D. TEACHING-LEARNING ACTIVITIES

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<tr>
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</table>
| INTRODUCTION| - Describing about matter at the 1st meeting
               - Describing about general and specific objectives competence | Observing and taking notes | OHP, transparancy, white board, reference books, and papers |
| PRESENTATION| - Explaining about determination of IS and LM Analysis
               - Giving examples as a study case | Observing, asking, taking notes | OHP, transparancy, white board, reference books, and papers |
| CLOSING     | - Discussion
               - Giving some problems as a homework
               - Giving description about matter on the next meeting | Discuss, asking, observing, taking notes | white board and papers |
E. EVALUATION: From the discussion, teacher can evaluate student’s ability of understanding the theory.

F. REFERENCE:
LEARNING UNIT PROGRAM

COURSE TITLE : ECONOMETRICS
CODE / CREDIT : PAS 121 / 3 SKS
DURATION : 150 MINUTES
WEEK : 13

A. INSTRUCTIONAL AIM :

1. GENERAL : After studying this course, the student are expected to be able to:
   explain the basics of linear regression model and analysis, relaxing
   the assumption of linear regression model : multicollinearity,
   heteroscedasticity, and autocorrelation; Regression with Lagged
   Dependent Variables; Regression with Dummy Variables :
   Independent and Dependent Dummy Variables; and Simultaneous
   Equation Modelling.

2. SPECIFIC : After studying this course, students are expected to have ability to:
   explain worker market and minimum salary policy

B. SUBJECT : Worker Market
C. SUB SUBJECT : Worker Market

D. TEACHING-LEARNING ACTIVITIES

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| PRESENTATION | • Explaining about determination of Worker Market  
                             • Giving examples as a study case | Observing, asking, taking notes | OHP, transparancy, white board, reference books, and papers |
| CLOSING    | • Discussion  
                             • Giving some problems as a homework  
                             • Giving description about matter on the next meeting | Discuss, asking, observing, taking notes | white board and papers |
E. EVALUATION: From the discussion, teacher can evaluate student’s ability of understanding the theory.


LEARNING UNIT PROGRAM

COURSE TITLE : ECONOMETRICS
CODE / CREDIT : PAS 121 / 3 SKS
DURATION : 150 MINUTES
WEEK : 14

A. INSTRUCTIONAL AIM :

1. GENERAL
   : After studying this course, the student are expected to be able to:
   explain the basics of linear regression model and analysis; relaxing
   the assumption of linear regression model : multicollinearity,
   heteroscedasticity, and autocorrelation; Regression with Lagged
   Dependent Variables; Regression with Dummy Variables :
   Independent and Dependent Dummy Variables; and Simultaneous
   Equation Modelling.

2. SPECIFIC
   : After studying this course, students are expected to have ability to:
   explain worker market and minimum salary policy

B. SUBJECT : Worker Market
C. SUB SUBJECT : Minimum Salary Policy

D. TEACHING-LEARNING ACTIVITIES

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<td>INTRODUCTION</td>
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<td>Observing and taking notes</td>
<td>OHP, transparancy, white board, reference books, and papers</td>
</tr>
<tr>
<td>PRESENTATION</td>
<td><strong>Explaining about determination of Minimum Salary Policy</strong>&lt;br&gt;<strong>Giving examples as a study case</strong></td>
<td>Observing, asking, taking notes</td>
<td>OHP, transparancy, white board, reference books, and papers</td>
</tr>
<tr>
<td>CLOSING</td>
<td><strong>Discussion</strong>&lt;br&gt;<strong>Giving some problems as a homework</strong>&lt;br&gt;<strong>Giving description about matter on the next meeting</strong></td>
<td>Discuss, asking, observing, taking notes</td>
<td>white board and papers</td>
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</tbody>
</table>
E. EVALUATION: From the discussion, teacher can evaluate student’s ability of understanding the theory.

F. REFERENCE:


LEARNING UNIT PROGRAM

COURSE TITLE : ECONOMETRICS
CODE / CREDIT : PAS 121 / 3 SKS
DURATION : 150 MINUTES
WEEK : 15

A. INSTRUCTIONAL AIM :

1. GENERAL : After studying this course, the student are expected to be able to: explain the basics of linear regression model and analysis; relaxing the assumption of linear regression model : multicollinearity, heteroscedasticity, and autocorrelation; Regression with Lagged Dependent Variables; Regression with Dummy Variables : Independent and Dependent Dummy Variables; and Simultaneous Equation Modelling.

2. SPECIFIC : After studying this course, students are expected to have ability to: explain aggregation demand and supply

B. SUBJECT : Aggregation Demand and Supply
C. SUB SUBJECT : Aggregation Demand and Supply

D. TEACHING-LEARNING ACTIVITIES

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<tr>
<td>PRESENTATION</td>
<td>- Explaining about determination of Aggregation Demand and Supply&lt;br&gt;- Giving examples as a study case</td>
<td>Observing, asking, taking notes</td>
<td>OHP, transparancy, white board, reference books, and papers</td>
</tr>
<tr>
<td>CLOSING</td>
<td>- Discussion&lt;br&gt;- Giving some problems as a homework&lt;br&gt;- Giving description about final test</td>
<td>Discuss, asking, observing, taking notes</td>
<td>white board and papers</td>
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E. EVALUATION

From the discussion, teacher can evaluate student's ability of understanding the theory.

F. REFERENCE


