



UNIUNEA EUROPEANĂ



GUVERNUL ROMÂNIEI



Fondul Social European  
POSDRU 2007-2013



Instrumente Structurale  
2007-2013



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UNIVERSITATEA DE VEST  
DIN TIMIȘOARA

**Investește în oameni!**

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Proiect cofinanțat din Fondul Social European prin Programul Operațional Sectorial Dezvoltarea Resurselor Umane 2007- 2013

## COURSE SYLLABUS

### 1. Information about the programme:

1.1 Institution of higher education	<b>WEST UNIVERSITY OF TIMISOARA</b>
1.2 Faculty / Department	<b>FACULTY OF ECONOMICS AND BUSINESS ADMINISTRATION</b>
1.3 Department of	<b>ECONOMICS AND BUSINESS MODELING</b>
1.4 Area of study	<b>FINANCE</b>
1.5 Level of studies	<b>BACHELOR STUDIES</b>
1.6 Training / qualification	<b>FINANCE AND BANKING</b>

### 2. Discipline data:

2.1 Course title	<b>ECONOMETRICS FB1TC2105</b>						
2.2 Course titular	Associate Professor ȘIPOȘ Ciprian, Ph.D.						
2.3 Workshop activities titular	Associate Professor ȘIPOȘ Ciprian, Ph.D.						
2.4 Year of study	II	2.5 Semester	1	2.6 Type of assessment	Ex	2.7 Type of subject matter	Md

### 3. Total estimated time (hours of teaching per semester):

3.1 Number of hours per week	3	3.2 course	2	3.3 workshops	1
3.4 Total hours in the curriculum	42	3.5 course	28	3.6 workshops	14
<b>Distribution of time:</b>					<b>hours</b>
Study based on Instructions, course materials, bibliography and notes					40
Additional documentation library, specialized electronic platforms / field					15
Training seminars / laboratories, homework, essays, portfolios and essays					23
Tutoring					-
Examinations					5



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Other activities	-
3.7 Total hours of private study	83
3.8 Total hours per semester	125
3.9 Number of credits	5

### 4. Prerequisites (where applicable)

4.1 of curriculum	<ul style="list-style-type: none"> <li>Applied Mathematical Economics, Statistics</li> </ul>
4.2 of skills	<ul style="list-style-type: none"> <li></li> </ul>

### 5. Conditions (where applicable)

5.1 of the course	Minimum attendance to the courses : 50%
5.2 to lead seminar / laboratory	Minimum attendance to the seminars: 70%

### 6. Specific skills acquired

Professional skills	<p><b>C2 Collection, analysis and interpretation of data and information regarding economic and financial problems</b></p> <ul style="list-style-type: none"> <li>C2.1 Identification and definition of methods, techniques and instruments for collection, analysis and interpretation of data and information regarding an economic and financial problem</li> <li>C2.2 Explanation of various methods, techniques and instruments for collection, analysis and interpretation of data regarding an economic or financial problem</li> </ul> <p><b>ABILITIES</b></p> <ul style="list-style-type: none"> <li>C2.3 To apply the various methods, techniques and instruments for collection, analysis and interpretation of data regarding an economic or financial problem</li> <li>C2.4 To identify the criteria of selection and to apply the most appropriate alternative for collection and analysis of financial-economic data</li> <li>C2.5 Performing economic-financial analysis based on data and information collected</li> </ul>
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### 7. Course objectives (based on the grid of the skills acquired)



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7.1 The overall objective of discipline	<ul style="list-style-type: none"> <li>Econometrics aims learning by students to express in quantitative relations the economic phenomena and processes, to determine the characteristics and the parameters of econometric models using appropriate mathematical and statistical tools.</li> </ul>
7.2 The specific objectives	<ul style="list-style-type: none"> <li>To design, to manage and to evaluate the practical activities using quantitative methods, techniques and tools of investigation and analysis of economic phenomena.</li> <li>Econometrics is a discipline essentially applied due to the fact that the models have no value without testing on real developments at the micro or macroeconomics;</li> <li>Learning skills to use specific tools, such as quantitative models and computer programs used in this field of study;</li> <li>Skills training to develop econometric models and especially the economic interpretation of the results.</li> <li>Learning skills in the use of econometric methods decision.</li> </ul>

## 8. Contents

8.1 Course	Teaching methods	Comments
<b>Chapter 1. Introduction to Econometrics</b>  1.1 Econometric assumptions of economic analysis 1.2 General considerations on the use of econometric methods in modelling the financial phenomena	Interactive lecture, explanation, conversation	Week 1: 2 hours
<b>Chapter 2. Estimation of econometric models parameters</b> 2.1 Covariance. Correlation coefficient, R Square 2.2 The Method of Least Squares 2.3 Single factor linear regression model 2.4 Multiple linear regression model 2.5 Other methods to estimate the parameters of econometric models	Interactive lecture, explanation, conversation	Weeks 2-6: 10 hours



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2.6 The autocorrelation of random variable, Durbin Watson test		
<b>Chapter 3. Econometric models of microeconomic analysis</b> 3.1 Fundamental notions regarding the use of econometric models at microeconomic level 3.2 Linear econometric models of microeconomic analysis 3.3 Nonlinear econometric models	Interactive lecture, explanation, conversation	Weeks 7-9: 6 hours
<b>Chapter 4. Econometric models of macroeconomic analysis</b> 4.1 General notions on the use of econometric models at the macroeconomic level 4.2 Patterns of production functions 4.3 Econometric models of macroeconomic equilibrium	Interactive lecture, explanation, conversation	Weeks 10-12: 6 hours
<b>Chapter 5. Time series</b> 5.1 Introduction in time series 5.2 Adjusting time series using analytical methods 5.3 Time functions 5.4 Autoregressive models	Interactive lecture, explanation, conversation	Weeks 13-14: 4 hours
<b>Bibliography:</b> <ol style="list-style-type: none"> <li>1. Brooks, C., <i>Introductory Econometrics for Finance</i>, Second Edition, Cambridge University Press, 2008</li> <li>2. Greene, W.H., <i>Econometric Analysis</i>, Macmillan Publishing Company, 1993</li> <li>3. Gujarati, D.N., <i>Basic Econometrics</i>, McGraw Hill, 1995</li> <li>4. Mills C.T., Patterson, K., <i>Palgrave Handbook of Econometrics: Volumel Econometric Theory</i>, Palgrave Macmillan, 2006</li> </ol>		



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5. Pecican E., Tănăsioiu O., Iacob A.I., *Modele econometrice*, Editura ASE, București, 2001
6. Pindyck R.S., Rubinfeld D.L., *Econometric Models and Economic Forecasts*, McGraw-Hill, Fourth Edition, 1998
7. Stock J. H. and Watson W. M., *Introduction to Econometrics*, Pearson International Edition 2007
8. Șipoș, C., Preda, C., *Econometrie*, Editura Mirton, Timișoara, 2006

8.2. Seminar / lab	Teaching methods	Comments
<b>Chapter 1. Introduction to Econometrics</b> 1.3 Econometric assumptions of economic analysis 1.4 General considerations on the use of econometric methods in modelling the financial phenomena	Questioning, explanation, conversation	Week 1: 2 hours
<b>Chapter 2. Estimation of econometric models parameters</b> 2.1 Covariance. Correlation coefficient, R Square 2.2 The Method of Least Squares 2.3 Single factor linear regression model 2.4 Multiple linear regression model 2.5 Other methods to estimate the parameters of econometric models 2.6 The autocorrelation of random variable. Durbin Watson test	Questioning, explanation, conversation	Week 3, 5: 4 hours
<b>Chapter 3. Econometric models of microeconomic analysis</b> 3.1 Fundamental notions regarding the use of econometric models at microeconomic level 3.2 Linear econometric models of microeconomic analysis 3.3 Nonlinear econometric models	Questioning, explanation, conversation	Week 7: 2 hours
<b>Chapter 4. Econometric models of macroeconomic</b>	Questioning, explanation, conversation	Week 9, 11:



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<p><b>analysis</b> 4.1 General notions on the use of econometric models at the macroeconomic level 4.2 Patterns of production functions 4.3 Econometric models of macroeconomic equilibrium</p>		4 hours
<p><b>Chapter 5. Time series</b> 5.1 Introduction in time series 5.2 Adjusting time series using analytical methods 5.3 Time functions 5.4 Autoregressive models</p>	Questioning, explanation, conversation	Week 13 : 2 hours
<p><b>Bibliography:</b></p> <ol style="list-style-type: none"> <li>1. Brooks, C., <i>Introductory Econometrics for Finance</i>, Second Edition, Cambridge University Press, 2008</li> <li>2. Greene, W.H., <i>Econometric Analysis</i>, Macmillan Publishing Company, 1993</li> <li>3. Gujarati, D.N., <i>Basic Econometrics</i>, McGraw Hill, 1995</li> <li>4. Mills C.T., Patterson, K., <i>Palgrave Handbook of Econometrics: Volume1 Econometric Theory</i>, Palgrave Macmillan, 2006</li> <li>5. Pecican E., Tănăsioiu O., Iacob A.I., <i>Modele econometrice</i>, Editura ASE, București, 2001</li> <li>6. Pindyck R.S., Rubinfeld D.L., <i>Econometric Models and Economic Forecasts</i>, McGraw-Hill, Fourth Edition, 1998</li> <li>7. Stock J. H. and Watson W. M., <i>Introduction to Econometrics</i>, Pearson International Edition 2007</li> <li>8. Șipoș, C., Preda, C., <i>Econometrie</i>, Editura Mirton, Timișoara, 2006</li> </ol>		

### 9. Corroboration of the course contents with the epistemic expectations of the community representative, professional associations and representative employers of the programme itself.

- The course is corroborated to the curricula of most important universities and faculties in Romania and



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abroad;

- Course content is consistent with the expectations/requirements of the finance and banking representative of companies/employers.

### 10. Evaluation:

Type of activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Percentage of the final mark
10.4 Course	Final evaluation	Written exam	30%
10.5 Workshop	Continuous evaluation	Presenting projects	30%
	Final evaluation	Written exam	40%
10.6 Minimum performance standards			
<ul style="list-style-type: none"> <li>• knowing the fundamentals of theory and solving basic applications</li> </ul>			

**Date of submission:** September 2014 **Titular of the course:**

Assoc. Prof. ȘIPOȘ Ciprian Ph.D

**Seminary titular:**

Assoc. Prof. ȘIPOȘ Ciprian Ph.D

**Date of approval in department:** September 2014

**Head of the Department:**

Prof. CISMAȘ Laura PhD



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