EDUCATIONAL ESTABLISHMENT
“BELARUS STATE ECONOMIC UNIVERSITY”

APPROVED BY
Rector of the Educational establishment
“Belarus State Economic University”
_________________ V.N.Shimov
“___” _____________ 2012
Registration № __________/basic.

ECONOMETRICS

Syllabus for the magistrates for the specialty
1-25 81 01 “International Economics and Trade Policy”

2012
AUTHORS:

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RECOMMENDED FOR APPROVAL AS THE BASIC PROGRAM:

By the Department of the Economic Informatics of the Educational Establishment “Belarus State Economic University”

(minutes №__, date ________);

Scientific Advisory Board of the Educational Establishment “Belarus State Economic University”

(minutes №__, date ________).
EXPLANATORY NOTE

The field of econometrics has developed rapidly. The use of up-to-date econometric techniques has become more and more standard practice in empirical work in many fields of economics.

The aim of the course “Econometrics” is to provide students with wide range of topics in modern econometrics, focusing on what is important for doing and understanding empirical work and to improve knowledge and skills in practical use of econometric models on real data using standard econometric software such as Eviews, Statistica and MS Excel.

Graduate students need to know:
– nature of econometrics and economic data;
– main concepts of linear regression models and its applications;
– main concepts of models with limited dependent variables and its applications;
– basic principles of modeling stationary time series and its applications;
– basic principles of modeling non-stationary time series and its applications;
– basic principles of construction and use of simultaneous equations and its applications.

Graduate students need to be able to:
– organize their work in accordance with the principles of the theoretical and practical work organization;
– apply different econometric models to the practical economic problems and forecasting;
– use corresponding software packages (MS Excel, Statistica, Eviews) to solve applied economic problems.

Control of knowledge is realized by means of tests using personal computers and necessary software.

Total hours on discipline – 164, hours of classroom – 62, where 50 hours – lectures, 12 hours – seminars. The form of control is an exam.
## THE SAMPLE TOPICAL PLAN

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**Total:** 62  50  12
CONTENTS OF THE EDUCATIONAL MATERIAL

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SECTION 2. SIMPLE LINEAR REGRESSION MODELS


SECTION 3. MULTIPLE LINEAR REGRESSION


SECTION 4. NONLINEAR REGRESSION MODELS


SECTION 5. ECONOMETRIC ANALYSIS UNDER VIOLATION OF THE CLASSICAL MODEL ASSUMPTIONS. HETEROSEDASTICITY. AUTOCORRELATION

SECTION 6. MODELS WITH DUMMY VARIABLES

SECTION 7. UNIVARIATE TIME SERIES MODELS

SECTION 8. MULTIVARIATE TIME SERIES MODELS

SECTION 9. MODELS BASED ON PANEL DATA

SECTION 10. SIMPLE PANEL DATA METHODS

SECTION 11. ADVANCED PANEL DATA METHODS

SECTION 12. SIMULTANEOUS EQUATIONS MODELS
REFERENCES


