Identification	Subject	ECON 450 Econometrics – 3KU credits/6ECT			
	Department	Economics and Management			
	Program	Undergraduate			
	Term	Spring 2024			
	Instructor	Sara Huseynova			
	E-mail	huseynova.sara@khazar.org			
	Classroom/hours				
Prerequisites	MATH 225 Mathematics for Economics and Business				
Language	English				
Compulsory/ Elective	Compulsory				
Textbooks and	1."Principles of Econometrics", R.Carter Hill, Wiliam E.Griffiths, Guay C.Lim				
course	5th Edition, 2018. (Will be provided by Instructor during Class)				
materials					
	Additional reading:				
	2 "Basic Econometrics" Damodar Guiarati Dawn Porter 5th Edition 2020				
	(Will be provided by Instructor during the Class)				
	3. Paul Newbold, William L.Carlson and Betty M.Thorne <b>``Statistics for Business and</b>				
	Economics'', 8 <sup>th</sup> edition, 2013. (NW)				
	4.Richard Startz "Eviews illustrated", 2019				
Course outline	This course offers an overview of the econometric methods utilized in examining				
	datasets across business, economics, finance, and statistical theories. It expands upon				
	basic linear regression models, concentrating on the practical application of statistical				
	and econometrics tools in analyzing business and economic scenarios. The curriculum				
	encompasses diverse subjects such as regression analysis, estimation techniques,				
	economic metrics, and survey methodologies. Specific topics covered involve least squares analyses properties of least squares estimators statistical inference in both				
	simple and multiple regression, as well as regression incorporating dummy variables				
Course	Upon completion of thi	s course, students will be proficient in applying econometric			
objective	techniques to analyze datasets in various domains such as business, economics, and				
5	finance. They will build upon their knowledge of simple and multiple linear regression				
	models to understand a	and utilize statistical and econometrics tools effectively. The			
	course will emphasize t	he application of these techniques to real-world business and			
	economic scenarios, cov	ering topics including least squares analyses, properties of least			
	squares estimators, statis	tical inference in simple and multiple regression, and regression			
Learning	With dummy variables.	the students will be able to:			
Outcomes	Developing a hy	nothesis, a research problem, and related questions			
Jucomes	- Framing the prol	blem with the correct research methodology			
	<ul> <li>Collecting data that accurately addresses the research problem</li> </ul>				
	- Measuring the effectiveness of estimation results				
	- Conducting simple and linear regression analysis				
	- Using data to make decisions				
	- Presenting data t	o support the certain economic policy or events			
1					

Grading	Methods			Percentage (%)	
System	Midterm Exam	TBA	30		
	Attendance		5		
	Activity		5		
	Home Assignments	15 <sup>th</sup> week	10		
	Quizzes (2)	7 <sup>th</sup> week and 14 <sup>th</sup> week	10		
	Final Exam	TBA	40		
	Total		100		
Policy	<ul> <li>Attendance Policy</li> <li>5% of final grade will be given The proof of reason for unavoidate the absence will not be resulted as Students should come to the class resulted as absence on the attending Instructor in advance.</li> <li>Class participation in this courtions of the final grade will be give contribute to the class discussion contribution will be the main fact Home Assignments Group Reset 1. Introduction</li> <li>2. Hypothesis development</li> <li>3. Data</li> <li>4. Econometric model</li> <li>5. Estimation result and interpret</li> <li>6. Conclusions</li> <li>7. References</li> <li>Groups shall consist of min 3 an You should hand in group report more than 10-14 slides and 15 m during the course. Besides this, a member individually for their in you from losing. Additional que group research is due on 14th we Quiz Each quiz is 5% of final gr to hold on the 5<sup>th</sup> week of the set Week of semester.</li> <li>Academic Dishonesty Students are expected to considishonesty such as plagiarism an expected to be honest and ethica will be immediately reported to</li> </ul>	0       7 <sup>th</sup> week and 10         14 <sup>th</sup> week       100         r TBA       40         100       100         se Policy       al grade will be given for class attendance. Students should attend all classes. of reason for unavoidable absence has to be provided by student. In this case, e will not be resulted with grade subtraction. hould come to the classes on time. Late arrival more than 15 minutes will be absence on the attendance sheet. In case of late arrival, student has to inform in advance.         ticipation in this course:       final grade will be given for class participation. It is required from students to to the class discussion and actively participate in team works. The quality of on will be the main factor not the quantity of contribution.         signments       Group Research report should comprise of the following sections: tion         esis development       etric model         ion result and interpretations       inone         sions       ccs         all consist of min 3 and max 4 students.       d hand in group report before the presentations. Presentations shall not be         10-14 slides and 15 minutes. More details about the assignments will provided course. Besides this, after the presentation grading. Correct answers will save osing. Additional questions may be asked if necessary. The deadline of this arch is due on 14th week of the semester.         10 quiz is 5% of final grade and will take 35 minutes. The first Quiz is planned the 5 <sup>th</sup> week of the semester. The second one will be conducted on the 11 <sup>th</sup> emester.         D			
	Tentative Schedule				
Week	Topics			Textbook/Chapters	

1		Introduction to Econometrics. The Econometric model.How are data generated?Experimental data , nonexperimental data.Economic data types:Time- series data,cross-section data, panel data .Analyse the data : Descriptive statistics, Covariance and Correlation analyses.Realization on Eviews software program	"Principles of Econometrics", R.Carter Hill, Wiliam E.Griffiths, Guay C.Lim 4th Edition.,Chapter 1 Richard Startz "Eviews illustrated",2019, Chapter 2
2		The Simple Linear Regression Model. Assessing the coefficient of simple linear regression equation by the Least Squares Estimators.Elasticity. Realization on Eviews software program	"Principles of Econometrics", R.Carter Hill, Wiliam E.Griffiths, Guay C.Lim 4th Edition.,Chapter 2 ,4, Richard Startz "Eviews illustrated",2019, Chapter 3
3		The Simple Linear Regression Model. The Gauss- Markov Theorem.Estimating the variance of the Error term.Using diagnostic residual plots: Heteroskedastic and Homoskedastic residual patterns. White test.Realization on Eviews software program	"Principles of Econometrics", R.Carter Hill, Wiliam E.Griffiths, Guay C.Lim 4th Edition.,Chapter 2,4 Richard Startz "Eviews illustrated", 2019, Chapter 3
4		The Simple Linear Regression Model. Testing the significance of the model. F-test, Student test, Determination coefficient. Realization on Eviews software program	"Principles of Econometrics", R.Carter Hill, Wiliam E.Griffiths, Guay C.Lim 4th Edition.Chapter 6 Richard Startz "Eviews illustrated",2019, Chapter 3
5		Multiple linear regression. The mechanics and interpretation of ordinary least squares	"Principles of Econometrics", R.Carter Hill, Wiliam E.Griffiths, Guay C.Lim 4th Edition.,Chapter 5,6 Richard Startz "Eviews illustrated",2019, Chapter 3
6		Multiple linear regression. The mechanics and interpretation of ordinary least squares.Testing the significance of the model. Autocorrelation: Durbin Watson test. Defining the stability of the model by CUSUM and CUSUM of squares test. Realization on Eviews software program	"Principles of Econometrics", R.Carter Hill, Wiliam E.Griffiths, Guay C.Lim 4th Edition.,Chapter 5,6 Richard Startz "Eviews illustrated", 2019, Chapter 3
7		Regression with Time-Series Data: Nonstasionary time series. Unit root tests for stasionarity. Realization on Eviews software program. (Quiz 1)	"Principles of Econometrics", R.Carter Hill, Wiliam E.Griffiths, Guay C.Lim 4th Edition.,Chapter 12 Richard Startz "Eviews illustrated",2019, Chapter 7
8		Midterm-exam Granger causality test. Realization on Eviews software program.	"Principles of Econometrics", R.Carter Hill, Wiliam E.Griffiths, Guay C.Lim 4th Edition.,Chapter 12 Richard Startz "Eviews illustrated",2019, Chapter 7

9	VAR models.Impulse response and variance decomposition. Realization on Eviews software program.	"Principles of Econometrics", R.Carter Hill, Wiliam E.Griffiths, Guay C.Lim 4th Edition.,Chapter 13
10	Cointegration.Trace test and Max eigenvalue test. Realization on Eviews software program.	"Principles of Econometrics", R.Carter Hill, Wiliam E.Griffiths, Guay C.Lim 4th Edition.,,,Chapter 12 Richard Startz "Eviews illustrated",2019, Chapter 7,8
11	VEC model. Tests of significance of VEC model. Realization on Eviews software program.	"Principles of Econometrics", R.Carter Hill, Wiliam E.Griffiths, Guay C.Lim 4th Edition.,Chapter 13 Richard Startz "Eviews illustrated",2019, Chapter 7,8
12	Prediction, Goodness-of-Fit and modelling issues. Polynomial model, Log-log model, Log linear model. Examples on Eviews software program.	"Principles of Econometrics", R.Carter Hill, Wiliam E.Griffiths, Guay C.Lim 4th Edition., Chapter 7
13	Panel data model	"Principles of Econometrics", R.Carter Hill, Wiliam E.Griffiths, Guay C.Lim 4th Edition., Chapter 15 Richard Startz "Eviews illustrated",2019, Chapter 11
14	Simultaneous equations models. (Quiz 2)	"Principles of Econometrics", R.Carter Hill, Wiliam E.Griffiths, Guay C.Lim 4th Edition., Chapter 11 Richard Startz "Eviews illustrated",2019, Chapter 11
15	Course Review/ Home assignment	
	Final Exam	