

DEREE COLLEGE SYLLABUS FOR: EC 4653 ECONOMETRICS II	
(Previously EC 4753 Econometrics)	
(Updated Fall 2021)	
UK LEVEL: 6 UK CREDITS: 15 US CREDITS: 3/1/3	
PREREQUISITES:	EC 1000 Principles of Microeconomics EC 1101 Principles of Macroeconomics MA 1008 College Algebra MA 2105 Applied Calculus MA 2021 Applied Statistics EC 3536 Econometrics I
CATALOG DESCRIPTION:	Econometric methods and applications in economics. Multivariate models and their methods of estimation, panel data regression, and binary/categorical dependent variables.
RATIONALE:	This is the second of two courses in investment analysis and management. Economics students need to develop the ability to model real life problems, quantify them and interpret results in order to evaluate policy directions. In this course, students acquire knowledge in more advanced tools and theoretical background in order to deal effectively with problems and issues raised in the context of various fields in economics.
LEARNING OUTCOMES:	After taking this course, students should be able to: <ol style="list-style-type: none"> 1. Formulate an economic hypothesis in a form suitable for econometric testing. 2. Apply econometric methods to obtain numerical estimates of coefficients in economic relationships. 3. Construct an appropriate set of criteria to establish whether a theory is consistent with facts. 4. Carry out collection of data, specification of a model, testing, and discussion of economic implications. 5. Apply econometric techniques in the context of real world empirical problems.
METHOD OF TEACHING AND LEARNING:	In congruence with the learning and teaching strategy of the college, the following tools are used: <ul style="list-style-type: none"> ➤ In-class exercises and examples to illustrate basic concepts. ➤ In-class discussion of journal articles in order to expand exposure on course content beyond the textbook and generate discussion. ➤ Laboratory practice sessions ➤ Office Hours: Students are encouraged to make full use of the office hours of their instructor, where they can ask questions and go over lecture material. ➤ Use of Blackboard learning platform, where instructors post lecture notes, assignment instruction, timely announcements, as well as additional resources ➤ Use of the Simulated Trading Room for data collection and analysis.
ASSESSMENT:	Summative:

	<table border="1" data-bbox="649 136 1390 268"> <tr> <td data-bbox="649 136 1214 201">Individual research project (2,800-3,000 words)</td> <td data-bbox="1214 136 1390 201">60%</td> </tr> <tr> <td data-bbox="649 201 1214 268">Final written examination: two-hour, in-class, closed book</td> <td data-bbox="1214 201 1390 268">40%</td> </tr> </table> <p data-bbox="649 304 787 331">Formative:</p> <table border="1" data-bbox="649 331 1390 367"> <tr> <td data-bbox="649 331 1214 367">Practice problem sets</td> <td data-bbox="1214 331 1390 367">0%</td> </tr> </table> <p data-bbox="649 401 1485 464">The formative assessment prepares students for the examination and ensures that students are actively engaged during the term.</p> <p data-bbox="649 495 1419 527">The research project tests Learning Outcomes 1, 2, 3, 4, and 5.</p> <p data-bbox="649 558 1398 590">The final examination tests Learning Outcomes 1, 2, 3, and 5.</p> <p data-bbox="649 621 1485 684">Both summative and formative assignments make use of statistical software (e.g. Eviews, STATA).</p> <p data-bbox="649 716 1485 905">The final grade for this module will be determined by averaging all summative assessment grades, based on the predetermined weights for each assessment. If students pass the comprehensive assessment that tests all Learning Outcomes for this module and the average grade for the module is 40 or higher, students are not required to resit any failed assessments.</p>	Individual research project (2,800-3,000 words)	60%	Final written examination: two-hour, in-class, closed book	40%	Practice problem sets	0%
Individual research project (2,800-3,000 words)	60%						
Final written examination: two-hour, in-class, closed book	40%						
Practice problem sets	0%						
INDICATIVE READING:	<p data-bbox="649 934 932 961">REQUIRED READING:</p> <p data-bbox="649 997 1425 1060">Wooldridge, J., <i>Introductory Econometrics: A Modern Approach</i>, latest edition.</p> <p data-bbox="649 1092 1000 1119">RECOMMENDED READING:</p> <p data-bbox="649 1155 1485 1218">Brooks, C. (2019). <i>Introductory Econometric for Finance</i>. Cambridge. Cambridge University Press, 2019.</p> <p data-bbox="649 1249 1485 1312">Stock, J. & Watson, M. (2019). <i>Introduction to Econometrics</i>. 4th Edition. Pearson.</p> <p data-bbox="649 1344 1485 1407">Other library sources, including journal articles accessed through the library databases as recommended by the instructor.</p>						
INDICATIVE MATERIAL: (e.g. audiovisual, digital material, etc.)	<p data-bbox="649 1436 1003 1463">REQUIRED MATERIAL: N/A</p> <p data-bbox="649 1499 1081 1526">RECOMMENDED MATERIAL: N/A</p>						
SOFTWARE REQUIREMENTS:	Excel, Word, financial databases, econometric software (e.g. Eviews, STATA)						
COMMUNICATION REQUIREMENTS:	Use of appropriate academic conventions as applicable in oral and written communications.						
WWW RESOURCES:	<p data-bbox="649 1780 932 1808">www.fred.stlouisfed.org</p> <p data-bbox="649 1808 902 1835">www.bloomberg.com</p> <p data-bbox="649 1835 919 1862">www.sin.clarksons.net</p>						

INDICATIVE CONTENT:

1. The Multiple Regression Model and Assumptions
2. Gauss Marcov Assumptions Violations
3. Estimation Methods: OLS,ML,IV,2SLS,GMM
4. Time Series Analysis: Decomposition, Stationarity
5. Coitegration /Error Correction Models
6. VAR and VECM Models
7. Panel Data Regression: Fixed and Random Effects
8. Binary/Categorical Dependent Variables