



## Quantitative Research Methods I Course Descriptor

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Course Title	Quantitative Research Methods I	Faculty	Economics
Course code	NCHEC668	Course Leader	Dr Ravshonbek Otojanov
Credits Points	15	Teaching Period	Michaelmas
FHEQ Level	Level 6	Date Approved	June 2020
Compulsory / Optional	Optional for PPE Economics Pathway students only		
Pre-requisites	Statistics		
Co-requisites	Quantitative Research Methods II		

### COURSE SUMMARY

This course introduces quantitative research methods and how they are applied in social, economic and political research. The course mainly focuses on the classical linear regression model and also introduces quantitative methods used in the analysis of time series and panel data models.

Students are exposed to the techniques by which social scientists carry out data analysis, and are exposed to the necessary element of uncertainty and randomness that needs to be acknowledged and quantified. Students are invited to consider and practise the major uses of quantitative methods: describing social, economic and political reality and testing hypotheses. The course lays the foundations for further training in data analysis.

### COURSE AIMS

The course aims to:

- Provide theoretical background for quantitative research methods used in social sciences.
- Foster the understanding of the application of quantitative techniques on social, economic and political data.
- Prepare students to read and critically evaluate empirical research in social and political sciences.

## LEARNING OUTCOMES

On successful completion of the course, students should be able to:

### KNOWLEDGE AND UNDERSTANDING

- K1c perform regression analysis and carry out the relevant tests
- K2c understand and explain the assumptions underlying regression models
- K3c evaluate the suitability of a quantitative method to a given dataset

### SUBJECT-SPECIFIC SKILLS

- S1c identify and appreciate the different types of models, data and data sources in social sciences
- S2c draw balanced conclusions from regression analysis using social and economic data
- S3c acquire an awareness of the role and contribution that basic quantitative methods make in the understanding of social, economic and political behaviour

### TRANSFERABLE SKILLS

- T1c read and understand social and economic reports that make use of quantitative methods introduced in the course

## TEACHING AND LEARNING

Students will have the opportunity to engage with:

- 1 x virtual learning environment (VLE)
- 15 x large-group hours
- 10 x seminar hours
- 0.75 x tutorial hours (individual or group tutorial)
- Weekly office hours

Students are required to attend and participate in all timetabled sessions for this course and, with the ongoing support available, to manage their directed learning and independent study.

Total study hours for this course are: 150.

## EMPLOYABILITY SKILLS

- Students will develop numeracy and statistical skills necessary to understand and communicate social, economic and political analysis.
- Students will be able to present data and reports of a high standard and learn to make data-driven decisions.

- Students develop skills necessary to deliver a small-scale empirical project, and the management of the project from initial conception to delivery.

## ASSESSMENT

### FORMATIVE

Students will be formatively assessed during the course by means of set assignments. These do not count towards the end of year results but will provide students with developmental feedback. For example, weekly problem sets are provided, and students present and discuss their answers in the tutorials.

### SUMMATIVE

Assessment will be in one form:

AE:	Assessment Activity	Weighting (%)	Online submission	Duration	Length
1	Exam	100%	No	2.5 Hours	N/A

The examination will consist of five questions from which the student will have the choice of answering a specified. The examination will be assessed in accordance with the assessment aims set out in the Programme Specification.

## FEEDBACK

Students will receive formal feedback in a variety of ways: written (including via email correspondence); oral (within one-to-one tutorials or on an *ad hoc* basis) and indirectly through discussion during seminars. Students will also attend the formal meeting, Collections, at the end of Michaelmas in which they will receive constructive and developmental feedback on their term's performance.

Feedback is provided on written assignments (including essays, briefings and reports) and through generic internal examiners' reports, both of which are posted on the College's VLE.

## INDICATIVE READING

Note: Comprehensive and current reading lists for courses are produced annually in Subject Handbooks or other documentation provided to students; the indicative reading list provided below is used as part of the approval/modification process only.

### BOOKS

Dougherty, C. (2016), *Introduction to Econometrics*, Fifth Edition, Oxford: Oxford University Press.

**INDICATIVE TOPICS**

Students will study the following topics:

- Review of statistics
- Simple linear regression model
- Multiple regression model
- Model specification
- Variable specification
- Measurement errors and IV models
- Time series models
- Limited dependent variable models
- Panel models

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<b>Approved by: Academic Board</b>					
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2.0	June 2021	June 2021	Marianna Koli	1 Academic Handbook > Course Descriptors 2 VLE	April 2025
1.0	June 2020	June 2020	Marianna Koli	1 Academic Handbook > Course Descriptors 2 VLE	April 2025
<b>Modifications (As per AQF4)</b>					
Version number	Date approved	Date published	Modification (including category number)		
2.0	June 2021	June 2021	Category 2: Change to 'Teaching and Learning Strategy'		