

Advanced methodology course: Intermediate Quantitative Methods

About the course

subject	Global Studies / Internationale udviklingsstudier / International Public Administration and Politics / Politik / Politik og forvaltning
activitytype	master course
Teaching language	English
Registration	<p>You register for activities through stads selvbetjening during the announced registration period, which you can see on the Study administration homepage.</p> <p>When registering for courses, please be aware of the potential conflicts and overlaps between course and exam time and dates. The planning of course activities at Roskilde University is based on the recommended study programmes, which should not overlap. However, if you choose optional courses and/or study plans that goes beyond the recommended study programmes, an overlap of lectures or exam dates may occur depending on which courses you choose.</p> <p>In case of too few registrations, the course will be cancelled.</p>
Detailed description of content	<p>We will in the first session repeat the fundamentals in running a multiple regression model: equation of straight line, the method of least squares and assessment of the fitness of the model. We discuss how single factors can affect the accuracy of the model and the use of dummy variables. In addition to the knowledge of fundamentals, we show situations with non-linear models, and how to deal with problems of multicollinearity, heteroscedasticity, and autocorrelation. We can conclude sometimes about the data quality by using the analysis of residuals.</p> <p>In the second session, we look at hierarchical data. In normal linear regression we assume data are organized at a single level. though often data are clustered within other variables. A number of assumptions in regression analysis we can do away with and the multilevel regression models might be more useful in developing countries when data are not of ideal quality. An example could be how to test the prevalence of bribe in developing countries.</p> <p>In the third session, we change the assumption in linear regression for the dependent variable. if we can use a categorical variable instead of a scale variable, we can test more political or sociological outcomes. Voting or not for a specific political party or link between empowerment and climate related disasters. Logistic regression describes how the probability of a particular category depends on explanatory variables.</p> <p>In the fourth session, we focus on exercises using international data and data from developing countries. The aim is to discuss which of the introduced tests (multiple linear regression, non-linear regression, multilevel regression or logistic regression model) is the appropriate model in the presented exercises. Look at the assumptions, at the data and the requested questions. Could we argue in some cases for different approaches, not just one single choice ?</p> <p>In the fifth and last session we will discuss the use statistical testing in scientific articles. How do we interpret tables with test results and how do we assess the quality of the paper ? Can we possible agree on criteria to apply to assess scientific papers ? We will discuss during the course what type of papers, students prefer we discuss for the last session.</p>
Expected work effort (ECTS-declaration)	Teaching session: 12,5 (5 times 2½ hours each) Exercises: 7,5 hours Preparation: 80 hours Exam: 48 hours
Course material and Reading list	Alan Agresti, Barbara Finlay, Statistical methods for social sciences, Pearson International, several editions, chapters: 11, 13, 14, 15 and 16 Upload of free chapter on multilevel analysis References to articles to download from REX (articles not selected)
Evaluation- and feedback forms	Written evaluation format and discussion during sessions.
Administration of exams	ISE Studyadministration (ise-studyadministration@ruc.dk)
Responsible for the activity	Thorkil Casse (casse@ruc.dk) Camilla Jensen (camje@ruc.dk)

Type of examination	<p>Individual written take-home assignment given by the lecturer.</p> <p>The take-home assignment may not exceed 14,400 characters in length, including spaces. The size specifications include the cover, table of contents, bibliography, figures and other illustrations, but exclude any appendices. The take-home assignment must be done within 48 hours, including any potential weekends and holidays.</p> <p>Assessment: 7-point grading scale.</p> <p>Re-examination:</p> <p>Same as ordinary</p>
ECTS	5
Learning outcomes and assessment criteria	<ul style="list-style-type: none"> Knowledge and understanding: <ul style="list-style-type: none"> Knowledge and understanding of academic and/or scientifically based practice-oriented methods and their application and relevance on an advanced level Being able to communicate and discuss academic and/or scientifically based practice-oriented studies in a type of language that is correct, clear, professionally accurate, well-structured and well-argued Skills: <ul style="list-style-type: none"> Carrying out studies and analyses with the aid of academic and/or scientifically based practice-oriented methods Evaluating and selecting methods from research-related and professional practices Competences: <ul style="list-style-type: none"> Co-operation with colleagues in the application of various academic and/or scientifically based practice-oriented methods and forms of analysis in relation to relevant issues in research-related and professional contexts Reflection on one's own learning and taking responsibility for one's own professional development
Overall content	<ul style="list-style-type: none"> Research and professional premises for academic and scientifically based practice-oriented analyses Approaches to the use of academic and/or scientifically based practice-oriented tools in research and professional contexts, respectively
Teaching and working methods	Lectures, exercises, student presentations, peer feedback and discussions. The course requires that the students contribute and participate actively.
Type of activity	Elective course
Form of examination (p1)	<p>Individual written take-home assignment given by the lecturer.</p> <p>The character limit of the assignment is: maximum 14,400 characters, including spaces. The character limit includes the cover, table of contents, bibliography, figures and other illustrations, but exclude any appendices.</p> <p>The duration of the take-home assignment is 48 hours and may include weekends and public holidays.</p> <p>Assessment: 7-point grading scale.</p>
Form of Re-examination (p1)	Samme som ordinær eksamen
Exam code(s)	Exam code(s) : U40849

Course days:

Hold: 1

Intermediate Quantitative Methods (GS, IDS, IPAP, PF, POL)

time	07-03-2022 08:15 til 07-03-2022 10:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	05.1-032 - teorirum 05.1 (65)
Teacher	Camilla Jensen (camje@ruc.dk) Thorkil Casse (casse@ruc.dk)

Intermediate Quantitative Methods (GS, IDS, IPAP, PF, POL)

time	11-03-2022 10:15 til 11-03-2022 12:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	05.1-032 - teorirum 05.1 (65)
Teacher	Camilla Jensen (camje@ruc.dk)

Intermediate Quantitative Methods (GS, IDS, IPAP, PF, POL)

time	14-03-2022 08:15 til 14-03-2022 10:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	05.1-032 - teorirum 05.1 (65)
Teacher	Camilla Jensen (camje@ruc.dk) Thorkil Casse (casse@ruc.dk)

Intermediate Quantitative Methods (GS, IDS, IPAP, PF, POL)

time	18-03-2022 10:15 til 18-03-2022 12:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	05.1-032 - teorirum 05.1 (65)
Teacher	Camilla Jensen (camje@ruc.dk)

Intermediate Quantitative Methods (GS, IDS, IPAP, PF, POL)

time	21-03-2022 08:15 til 21-03-2022 10:00
forberedelsesnorm	ikke valgt

forberedelsesnorm D-VIP	ikke valgt
location	05.1-032 - teorirum 05.1 (65)
Teacher	Camilla Jensen (camje@ruc.dk) Thorkil Casse (casse@ruc.dk)

Intermediate Quantitative Methods (GS, IDS, IPAP, PF, POL)

time	28-03-2022 08:15 til 28-03-2022 10:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	07.1-008 - undervisningslokale (60)
Teacher	Camilla Jensen (camje@ruc.dk) Thorkil Casse (casse@ruc.dk)

Intermediate Quantitative Methods (GS, IDS, IPAP, PF, POL)

time	01-04-2022 10:15 til 01-04-2022 14:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	05.1-032 - teorirum 05.1 (65)
Teacher	Camilla Jensen (camje@ruc.dk)

Intermediate Quantitative Methods (GS, IDS, IPAP, PF, POL)

time	04-04-2022 08:15 til 04-04-2022 10:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	05.1-032 - teorirum 05.1 (65)
Teacher	Camilla Jensen (camje@ruc.dk) Thorkil Casse (casse@ruc.dk)

Intermediate Quantitative Methods (GS, IDS, IPAP, PF, POL)

time	08-04-2022 10:15 til 08-04-2022 12:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	07.1-008 - undervisningslokale (60)
Teacher	Thorkil Casse (casse@ruc.dk)

Intermediate Quantitative Methods - Written exam (GS, IDS, IPAP, PF, POL)

time	13-06-2022 10:00 til 15-06-2022 10:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt

Intermediate Quantitative Methods - Written reexam (GS, IDS, IPAP, PF, POL)

time	10-08-2022 10:00 til 12-08-2022 10:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt