

# Advanced methodology course: Intermediate Quantitative Methods

## About the course

|   |  |
|---|--|
| subject                                 | Global Studies / Internationale udviklingsstudier / Socialvidenskab / International Public Administration and Politics / Politik / Politik og forvaltning  |
| activitytype                            | master course  |
| Teaching language                       | English  |
| Registration                            | <p>You register for activities through <a href="#">stads selvbetjening</a> during the announced registration period, which you can see on the <a href="#">Study administration homepage</a>.</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><b>We expect students to be familiar with basic statistical methods, t-test, Chi-square test and regression models. Throughout the course we will use the statistical package SPSS. Students with no prior knowledge of the software program, we will recommend:</b></p> <p><b>SPSS Survival Manual: A Step by Step Guide to Data Analysis Using IBM Spss, 6th edition</b></p> <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 ( <a href="mailto:ise-studyadministration@ruc.dk">ise-studyadministration@ruc.dk</a> )  |
| Responsible for the activity              | Thorkil Casse ( <a href="mailto:casse@ruc.dk">casse@ruc.dk</a> )  |
| ECTS                                      | 5   |
| Learning outcomes and assessment criteria | <ul style="list-style-type: none"> <li>• Knowledge and understanding: <p>Knowledge and understanding of academic and/or scientifically based practice-oriented methods and their application and relevance on an advanced level</p> </li> <li>• 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</li> <li>• Skills: <p>Carrying out studies and analyses with the aid of academic and/or scientifically based practice-oriented methods</p> </li> <li>• Evaluating and selecting methods from research-related and professional practices</li> <li>• Competences: <p>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</p> </li> <li>• Reflection on one's own learning and taking responsibility for one's own professional development</li> </ul> |
| Overall content                           | <ul style="list-style-type: none"> <li>• Research and professional premises for academic and scientifically based practice-oriented analyses</li> <li>• Approaches to the use of academic and/or scientifically based practice-oriented tools in research and professional contexts, respectively</li> </ul>  |
| 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 08-02-2021 10:15 til  
08-02-2021 14:00

Teacher Thorkil Casse ( casse@ruc.dk )  
Camilla Jensen ( camje@ruc.dk )

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

time 15-02-2021 10:15 til  
15-02-2021 14:00

Teacher Thorkil Casse ( casse@ruc.dk )  
Camilla Jensen ( camje@ruc.dk )

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

time 22-02-2021 10:15 til  
22-02-2021 14:00

Teacher Thorkil Casse ( casse@ruc.dk )  
Camilla Jensen ( camje@ruc.dk )

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

time 01-03-2021 10:15 til  
01-03-2021 14:00

Teacher Thorkil Casse ( casse@ruc.dk )  
Camilla Jensen ( camje@ruc.dk )

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

time 08-03-2021 10:15 til  
08-03-2021 14:00

Teacher Thorkil Casse ( casse@ruc.dk )  
Camilla Jensen ( camje@ruc.dk )

## Intermediate Quantitative Methods (GS, IDS, IPAP, PF, POL) - Exam

time 29-03-2021 10:00 til  
31-03-2021 10:00

forberedelsesnorm ikke valgt

forberedelsesnorm D-VIP ikke valgt

## Intermediate Quantitative Methods (GS, IDS, IPAP, PF, POL) - Reexam

time 23-08-2021 10:00 til  
25-08-2021 10:00

forberedelsesnorm ikke valgt

forberedelsesnorm D-VIP ikke valgt