

<b>Module title</b>		<b>Abbreviation</b>
Data Analysis: Multivariate Statistics 1		o6-AM-DA1-072-m01
<b>Module coordinator</b>		<b>Module offered by</b>
Managing Director of the Institute for Political Science and Sociology		
<b>ECTS</b>	<b>Method of grading</b>	<b>Only after succ. compl. of module(s)</b>
10	numerical grade	--
<b>Duration</b>	<b>Module level</b>	<b>Other prerequisites</b>
1 semester	undergraduate	--
<b>Contents</b>		
<p>Techniques of ordinary least squares regression using statistical software like SPSS, SAS, R, or STATA: deduction of hypotheses from theories in social stratification and social inequality; construction of hierarchical models; calculation and interpretation of f-tests and increment f-tests; <math>R^2</math> as a measure of explained variance; t-tests for linear effects, effects of categorical factors, nonlinear effects, and interaction effects; calculation of conditional predicted values; prerequisites of ols regression models; oral and written discussion and presentation of ols-regression models. Techniques of logistic regression using statistical software like SPSS, SAS, R, or STATA: deduction of hypotheses from theories in social stratification and social inequality; frequencies, probabilities, odds, odds ratios and logits; construction of hierarchical models; philosophy of maximum likelihood estimation; -2LL und Pseudo-<math>R^2</math> as measures of proportional reduction in error (PRE); calculation and interpretation of Wald-tests for linear effects, effects of categorical factors, nonlinear effects, and interaction effects; calculation of conditional predicted values; prerequisites of logistic regression models; oral and written discussion and presentation of logistic regression models.</p>		
<b>Intended learning outcomes</b>		
<p>Participants acquire the competency to use techniques of OLS regression and logistic regression. modelling in statistical software in order to test hypotheses deduced from scientific theories and to present findings both in oral and written form in the scientific community.</p>		
<b>Courses</b> (type, number of weekly contact hours, language – if other than German)		
<p>This module comprises 2 module components. Information on courses will be listed separately for each module component.</p> <ul style="list-style-type: none"> <li>o6-AM-DA1-1-072: S (no information on SWS (weekly contact hours) and course language available)</li> <li>o6-AM-DA1-2-072: S (no information on SWS (weekly contact hours) and course language available)</li> </ul>		
<b>Method of assessment</b> (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)		
<p>Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.</p> <p><b>Assessment in module component o6-AM-DA1-1-072: Data Analysis: Multivariate Statistics 1-1</b></p> <ul style="list-style-type: none"> <li>5 ECTS, Method of grading: numerical grade</li> <li>a) research report (approx. 15 pages) or term paper (approx. 15 pages) or scientific poster (1 page, DIN A0)</li> <li>Language of assessment: German or English and in addition French where required</li> </ul> <p><b>Assessment in module component o6-AM-DA1-2-072: Data Analysis: Multivariate Statistics 1-2</b></p> <ul style="list-style-type: none"> <li>5 ECTS, Method of grading: numerical grade</li> <li>a) research report (approx. 15 pages) or term paper (approx. 15 pages) or scientific poster (1 page, DIN A0)</li> <li>Language of assessment: German or English and in addition French where required</li> </ul>		
<b>Allocation of places</b>		
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<b>Additional information</b>		
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**Referred to in LPO I** (examination regulations for teaching-degree programmes)

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**Module appears in**

Bachelor' degree (1 major) Political and Social Studies (2007)