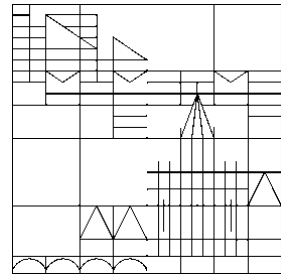


University of Konstanz
Faculty of Law, Economics and Politics
Department of Economics



Course Catalogue

for the
**Master's Programme
in Social and
Economic Data
Science**

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**Summer Semester
2019**

Version: 18/04/2019

Course Advice for Students of the Master's Programme in Social and Economic Data Science

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Office Hours: Tuesday, Thursday, 10:00 – 12:00

Student Course Guidance:
Alessia Invernizzi
Email: seds.msc@uni-konstanz.de

Dates of the Summer Semester 2018

Lectures begin: Monday, 15th April 2019
Lectures end: Saturday, 20st July 2019

Registration period of the Department of Economics:

Exam registration period: 25th June – 01st July 2019
Examination period I: 11th July – 03rd August 2019

Exam registration period: 10th September - 16th September 2019
Examination period II: 4th October - 26th October 2019

Seminar registration period for
Winter Semester 2019/20: 25th June – 01st July 2019

Registration periods of the Department of Politics and Public Administration:

Exam registration period I: 01st May – 15th June 2019
Exam registration period II: 13th September – 18th September 2019

Exam Registration Periods of the Department of Computer and Information Science

Registration: Via StudIS

Registration periods:

Lectures – 1st exams: tba

Lectures – 2nd exams: tba

Seminars: tba

Exam Registration Periods of the Department of History and Sociology

Registration period (StudIS): 1st May – 15th June 2019

Exam Registration Periods of the Department of Mathematics and Statistics

Registration: Students are able to apply via StudIS up to seven days before the exam.

Exam Registration Periods of the Department of Psychology

Not yet online

Dates of the Winter Semester 2019/20

Lectures begin: Monday, 21st October 2019

Lecture-free period: 21st December, 2019 – 4th January, 2020

Lectures end: Saturday, 15th February 2020

1. Foundations of Data Science

Focus Area: Computer Sciences

Information Visualization I, 2+2 hours (6 ECTS)
Monday, 10:00 - 11:30, C 358

T. Polk

Tutorials:

Group I: Wednesday, 13:30 - 15:00, D 247

Group II: Thursday, 11:45 - 13:15, D 201

Konzepte der Informatik, 4+2 hours (6 ECTS)

B. Pampel

Tuesday, 10:00 - 11:30, A 702

Friday, 10:00 – 11:30, A 702

Tutorials:

Group I: Wednesday, 13:30 - 15:00, P 602

Group II: Thursday, 17:00 – 18:30, P 602

Only in combination with:

Programmierkurs I, 2+2 hours (6 ECTS)

J. Fuchs

Wednesday, 11:45 - 13:15, A 702

Tutorials:

Group I: Monday, 15:15 – 16:45, L 829

Group II: Monday, 17:00 – 18:30, L 829

Group III: Tuesday, 15:15 – 16:45, ML 630

Focus Area: Mathematics

Analysis und Lineare Algebra, 4+2 hours (9 ECTS)

S. Kosub

Wednesday, 10:00 - 11:30, R 513

Thursday, 10:00 - 11:30, R 513

5 Tutorials, for time and room see: [ZEuS](#)

Focus Area: Social Scientific Methods

Econometrics I, 4+2 hours (8 ECTS)

W. Pohlmeier

Thursday, 08:15 - 09:45, A 701

Friday, 08:15 - 09:45, A 701

7 Tutorials, for time and room see: [ZEuS](#)

Methoden II, 2 hours (5 ECTS)

T. Kuhlmann

Monday, 13:30 – 15:00, R 711

Focus Area: Statistics

Statistics I (Dept. of Economics), 2+2 hours (6 ECTS) R. Brüggemann
Friday, 10:00 – 11:30, R 711

9 Tutorials, for time and room see: [ZEuS](#)

Statistics (Dept. of Politics and Public Administration), 4 hours (9 ECTS) S. Shikano
Tuesday, 15:15 – 16:45, R 712
Wednesday, 10:00 - 11:30, R 711

Statistik (Dept. of Sociology), 2+2 hours (7 ECTS) M. Buis
Monday, 10:00 – 11:30, A 702
or
Tuesday, 13:30 – 15:00, A 703

5 Tutorials, for time and room see: [ZEuS](#)

2. Advanced Methods: Computer Science

Big Data Management and Analysis, 2+2 hours (6 ECTS) M. Grossniklaus
Tuesday, 15:15 – 16:45, A 702

Tutorial: Wednesday, 17:00 – 18:30, A 702

Algorithmen und Datenstrukturen, 4+2 hours (9 ECTS) S. Storandt
Monday, 10:00 – 11:30, M 629
Tuesday, 10:00 – 11:30, M 629

5 Tutorials, for time and room see: [ZEuS](#)

Only in combination with:

Programmierkurs II, 2 hours (3 ECTS) S. Storandt
Monday, 15:15 – 16:45, A 703

Datenbanksysteme, 4+2 hours (9 ECTS) M. Scholl
Monday, 13:30 – 15:00, A 701
Tuesday, 11:45 – 13:15, A 701

5 Tutorials, for room and time see: [ZEuS](#)

3. Advanced Methods: Statistics

Probability Theory and Statistical Inference, 2+2 hours (8 ECTS) L. Grigoryeva
Monday, 08:15 – 09:45, C 424
Monday, 10:00 – 11:30, C 424

Microeconometrics, 3+2 hours (8 ECTS) W. Pohlmeier
Thursday, 10:00 – 11:30, F 425
Friday, 10:00 – 11:30, fortnightly, F 425

Tutorial: Monday, 15:15 – 16:45, G 300 P. Heiler

Research Design II: Statistical Modelling and Inference in Quantitative Research, 2+2 hours (9 ECTS)
Thursday, 10:00 – 11:30, A 704

M. Hermann

Tutorials:

Wednesday, 15:15 – 16:45, BS 217

Thursday, 15:15 – 16:45, BS 217

Applied Time Series Analysis, 3 hours (8 ECTS)

R. Brüggemann

Monday, 11:45 – 13:15, D 436

Friday, 11:45 – 13:15, fortnightly, D 436

Tutorial: Friday, 11:45 – 13:15, fortnightly, D 436 + CIP Pool

M. Daniele

Machine Learning, 2+1 hours (6 ECTS)

L. Grigoryeva

Monday, 17:00 – 18:30, G 201

Tutorial: Monday, 15:15 – 16:45, V 203

4. Programming and Scripting

Data Analysis with R, (7 ECTS)

M. Herrmann

Friday, 08:15 – 09:45, BS 217

Datenanalyse mit R, (7 ECTS)

M. Herrmann

Group A: Friday, 10:00 – 11:30, BS 217

Group B: Friday, 13:30 – 15:00, BS 217

Programmierkurs I, 2+2 hours (6 ECTS)

J. Fuchs

Wednesday, 11:45 - 13:15, A 702

Tutorials:

Group I: Monday, 15:15 – 16:45, L 829

Group II: Monday, 17:00 – 18:30, L 829

Group III: Tuesday, 15:15 – 16:45, ML 630

Programmierkurs II, 2 hours (3 ECTS)

S. Storandt

Monday, 15:15 – 16:45, A 703

5. Social Science Applications

Summer School on Econometrics and Machine Learning (6 ECTS)

L. Grigoryeva/
W. Pohlmeier

Sept. 22 - 29, 2019 in Anapa (Russia) on the Black Sea
or alternatively in Konstanz:

17/10/19, 09:00-17:00, F425

18/10/19, 09:17:00, F425

The summer school is a joint endeavor of Plekhanov University, Moscow, and the University of Konstanz. Participation in the Summer School counts as a Master Seminar in Econometrics with 6 ECTS. Students who are not able to attend the Summer School have the opportunity to present their seminar paper in a block seminar in the first week of the lecture period of the Winter term (see above). Participation in the Summer School will be almost fully funded (travel expenses, room and board). A small participation fee (ca. 100 euro) will be charged though.

Introduction to Computational Social Science, 2 hours (7 ECTS)

Thursday, 15:15 – 16:45, C 421

A. Jungherr

Neuere Theorien und Methoden der Wahlforschung, 2 hours (7 ECTS)

Tuesday, 10:00 – 11:30, C 424

S. Shikano

Timetable Foundations of Data Science Summer Semester 2019

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:15 – 9:45				Econometrics I / Pohlmeier	Econometrics I / Pohlmeier
10:00 – 11:30	Information Visualization I / Polk Statistik / Buis	Konzepte der Informatik / Pampel	Statistics / Shikano Analysis and Lineare Algebra / Kosub	Analysis and Lineare Algebra / Kosub	Statistics I / Brüggemann Konzepte der Informatik / Pampel
11:45 – 13:15			Programmierkurs I / Fuchs		
13:30 – 15:00	Methoden II / Kuhlmann	Statistik / Buis			
15:15 – 16:45		Statistics / Shikano			
17:00 – 18:30					

Timetable Advanced Modules Summer Semester 2019

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:15 – 9:45	Probability Theory and Statistical Inference (L) / Grigoryeva				Data analysis with R / Herrmann
10:00 – 11:30	Algorithmen und Datenstrukturen / Storandt Probability Theory and Statistical Inference (T) / Grigoryeva	Algorithmen und Datenstrukturen / Storandt Neuere Theorien und Methoden der Wahlforschung (S) / Shikano		Microeconometrics (L) / Pohlmeier Research Design II (L) / Herrmann	Microeconometrics (L) / Pohlmeier Datenanalyse mit R/ Herrmann
11:45 – 13:15	Applied Time Series (L) / Brüggemann	Datenbanksysteme (L) / Scholl	Programmierkurs I / Fuchs		Applied Time Series (L/T) / Brüggemann
13:30 – 15:00	Datenbanksysteme / Scholl				Datenanalyse mit R/ Herrmann
15:15 – 16:45	Programmierkurs II / Storandt Microeconometrics (T) / Heiler Machine Learning (T) / Grigoryeva	Big Data Management and Analysis (L) / Grossniklaus		Introduction to Computational Social Science (S) / Jungherr	
17:00 – 18:30	Machine Learning (L) / Grigoryeva		Big Data Management and Analysis (T) / Grossniklaus		

PREVIEW WINTER SEMESTER 2019/20

1. Introduction to Computational Methods for the Social Sciences K. Donnay

2. Foundations of Data Analysis

Focus Area: Computer Sciences

Information Visualization, (6 ECTS) N.N.

Focus Area: Mathematics

Diskrete Mathematik und Logik, (9 ECTS) N.N.

Datenmathematik, (9 ECTS) N.N.

Mathematik für Wirtschaftswissenschaftler, 4 + 2 hours (9 ECTS) N.N.

Lineare Algebra, 4 + 2 hours (9 ECTS) N.N.

Focus Area: Statistics

Statistik I (Dept. of Psychology), 2 + 2 hours (6 ECTS) N.N.

Focus Area: Social Scientific Methods

Introduction to Survey Methodology, 2 + 2 hours (9 ECTS) N.N.

Methoden der emp. Politik- und Verwaltungsforschung, 4 hours (9 ECTS) N.N.

Empirie: Quantitative Methoden, 2 + 2 hours (6/7 ECTS) N.N.

Research Design I, 2 + 2 hours (9 ECTS) N.N.

Methoden I, (5 ECTS) N.N.

2. Advanced Methods: Computer Science

Konzepte der Programmierung (6 ECTS) in combination with
Programmierkurs III (6 ECTS) N.N.

3. Advanced Methods: Statistics

Advanced Econometrics, 3 + 2 hours (10 ECTS) N.N.

Advanced Time Series Analysis, (8 ECTS) N.N.

4. Programming and Scripting

Data Analysis with R, (7 ECTS) N.N.

Datenanalyse mit R, (7 ECTS) N.N.

Programmierkurs I, (6 ECTS) N.N.

Programmierkurs III, (6 ECTS) N.N.