Course Catalogue

for the Master’s Programme in Social and Economic Data Science

First Year/Second Year

Winter Semester 2019/2020

Version: 09/08/2019
Course Advice for Students of the
Master’s Programme in Social and Economic Data Science

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Email: sedmsc@uni-konstanz.de

Dates of the Winter Semester 2019/2020

Welcome Programme for new Master’s students: Monday, 14th October 2019, 14:00
Lectures begin: Monday, 21st October 2019
Lecture-free period: Friday, 23rd December 2019 – Friday, 3rd January 2019
Lectures end: Friday, 15th February 2019

Registration period of the Department of Economics:

Seminar registration period for Winter Semester 2019: Tuesday, 25th June - Monday, 01st July 2019

Seminar registration period for Summer Semester 2020: Tuesday, 21st January – Monday, 27th January 2020

Exam Registration period: Tuesday, 21st January – Monday, 27th January 2020
Examination period I: Wednesday, 12th February – Saturday, 29th February 2020

Exam Registration period II: Tuesday, 17th March – Monday, 23rd March 2020
Examination period II: Saturday, 28th March – Saturday, 18th April 2020


Registration period of the Department of Politics and Public Administration:

Exam and Seminar Registration period I: 01.12.2019 - 15.01.2020
Registration period II: tba
Examination Dates: https://www.polver.uni-konstanz.de/service/formalitaeten/fristen-und-termine/
Exam Registration Periods of the Department of Computer and Information Science

Registration: Via StudIS or with the offline-registration-form within the registration period
Reg. Period I (lectures): tba
Reg. Period II (lectures): tba
Examination dates, etc: https://www.informatik.uni-konstanz.de/en/service-and-support/examinations/exam-registration/

Exam Registration Periods of the Department of History and Sociology

Registration period (StudIS): Summer semester: 01st May – 15th June
Winter semester: 01st December – 15th January
https://www.soziologie.uni-konstanz.de/en/study/ba-sociology/study-organisation/deadlines/

Exam Registration Periods of the Department of Mathematics and Statistics

Registration: Students can apply up to one week before the exam.
Examination office: www.mathematik.uni-konstanz.de/beratung-und-service/pruefungsverwaltung/

Exam Registration Periods of the Department of Psychology

Examination dates: https://www.psychologie.uni-konstanz.de/beratung-und-service/formulare-und-downloads/bachelor/
Examination office (Lydia Dreher): https://www.psychologie.uni-konstanz.de/beratung-und-service/ansprechpartner/
PREPARATION COURSES for new master’s students
(free of charge, no registration necessary)

Department of Economics:

PREP 1: Advanced Econometrics (Duration: 5 days) W. Pohlmeier
Tuesday, 10/10/19, 13:30-16:45, F 420
Friday, 11/10/19, 13:30-16:45, G 227
Monday, 14/10/19, 13:30-16:45, G 201
Tuesday, 15/10/19, 13:30-16:45, G 201
Wednesday, 16/10/19, 13:30-16:45, G 201

See ZEuS: https://zeus.uni-konstanz.de:443/hioserver/pages/startFlow.xhtml?_flowId=detailView-flow&unitId=4001&periodId=180

PREP 2: Quantitative Methods in Economics (Duration: 5 days) J. Alasalmi
Thursday, 17/10/19, 10:00 - 16:45, K 503
Friday, 18/10/19, 10:00 - 16:45, K 503
Monday, 21/10/19, 11:45 - 16:45, G 227a
Tuesday, 22/10/19, 11:45 - 16:45, G 227a
Wednesday, 23/10/19, 11:45 - 16:45, G 227a

See ZEuS: https://zeus.uni-konstanz.de:443/hioserver/pages/startFlow.xhtml?_flowId=detailView-flow&unitId=4003&periodId=180

Department of Computer Sciences:

Kompaktkurs Mathematik 1 S. Kosub
(Duration 5 days, german only)

See ZEuS: https://zeus.uni-konstanz.de/hioserver/pages/cm/exa/coursemanagement/basicCourseData.xhtml?flowId=searchCourseNonStaff-flow&flowExecutionKey=e11s4

Java Crash Course (Duration 3 days) F. Götz-Hahn
Time and room t.b.a.
First Semester

1. Introduction to Computational Methods for the Social Sciences

**Introduction to Computation for the Social Sciences** (9 ECTS)  
K. Donnay  
Monday, 11:45 – 13:15, F 428  
Tutorial:  
Wednesday, 10:00 – 11:30, D 301

Please note: In preparation for “Introduction to Computation for the Social Sciences” we advise all new MSc SEDS Students to take the Python Block Course in October (see page 8).

2. Foundations of Data Science

**Computer Science**

**Information Visualization II** (6 ECTS)  
D. Keim / J. Fuchs  
Thursday, 10:00 – 11:30, D 247  
Tutorial:  
Thursday, 15:15 – 16:45, D 247

**Data Mining: Basic Concepts** (6 ECTS)  
J. Fuchs / D. Keim  
Tuesday, 11:45 – 13:15, R 511  
Tutorial:  
Group A: Thursday, 10:00 – 11:30, L 601  
Group B: Thursday, 13:30 – 15:00, L 601

**Analyse und Visualisierung von Informationen** (9 ECTS)  
D. Keim / J. Fuchs  
Monday, 13:30 – 15:00, A 703  
Tuesday, 11:45 – 13:15, A 701  
Tutorial:  
Group A: Thursday, 10:00 – 11:30, L 601  
Group B: Thursday, 13:30 – 15:00, L 601

Please note: “Analyse und Visualisierung von Informationen” (german only) is an alternative to “Information Visualization II” and “Data Mining: Basic Concepts”

**Konzepte der Informatik** (6 ECTS)  
B. Pampel  
Monday, 13:30 – 15:00, A 701  
Tuesday, 13:30 – 15:00, A 701  
Tutorial:  
Six groups, see ZEUS

Only in combination with

**Programmierkurs I (Imperative Sprache)** (6 ECTS)  
J. Fuchs  
Tuesday, 15:15 – 16:45, A 703  
Tutorial:  
Six groups, see ZEuS
Mathematics

Diskrete Mathematik und Logik (9 ECTS)  
S. Kosub  
Wednesday, 10:00 – 11:30, R 513  
Thursday, 10:00 – 11:30, R 513

Tutorial:  
Six groups, see ZEuS

Lineare Algebra I (6+3 ECTS)  
S. Kuhlmann  
Monday, 10:00 – 11:30, R 712  
Thursday, 10:00 -11:30, R 712

Tutorial: tba

Mathematik für Wirtschaftswissenschaftler I (9 ECTS)  
J. Schropp  
Monday, 08:15 – 09:45, A 600  
Thursday, 10:00 – 11:30, A 600

Tutorial:  
15 Groups, see ZEuS

Datenmathematik  
S. Kosub  
Tuesday, 15:15 – 16:45, R 712  
Thursday, 13:30 – 15:00, R 513

Tutorial:  
4 Groups, see ZEuS

Social Science Methods

Introduction to Survey Methodology (6+3 ECTS)  
P. Selb  
Thursday, 11:45 – 13:15, A 702

Tutorial:  
Wednesday, 11:45 – 13:15, C 358

Research Design I: Research Design and Causal Inference (9 ECTS)  
P. Selb  
Tuesday, 11:45 – 13:15, R 712

Empirical Research Methods (9 ECTS)  
S. Shikano  
Tuesday, 15:15 – 16:45, A 600  
Wednesday, 8:15 - 9:45, A 600

Empirie: Quantitative Methoden (6 ECTS)  
T. Wöhler  
Thursday, 15:15 – 16:45, A 701

Tutorial:  
5 groups, see ZEuS

Methoden I (5 ECTS)  
UD. Reips  
Monday, 13:30 – 15:00, R 711

Tutorial:  
Monday, 15:15 - 16:45, R 711
Statistics

Statistics I (6 ECTS)  
Tuesday, 11:45 – 13:15, R 513

Tutorial:
Wednesday, 11:45 – 13:15, R 513
Third Semester

1. Advanced Methods: Computer Science

Konzepte der Programmierung (6 ECTS)
M. Grossniklaus
Tuesday, 08:15 – 9:45, A 702
Wednesday, 08:15 – 9:45, A 703

Tutorial:
4 Groups, see ZEuS

Only in combination with
Programmierkurs III (Deklarative Sprache) (6 ECTS)
L. Wörteler
Tuesday, 13:30 – 15:00, A 704

2. Advanced Methods: Statistics

Advanced Econometrics (10 ECTS)
W. Pohlmeier
Wednesday, 08:15 – 09:45, A 704
Friday, 08:15 – 09:45, A 704

Please note: the tutorials take place before the first lecture!

Tutorial:
Group A:
Monday, 15:15 – 16:45, G 300, begins 21/10/2019
L. Shkoza / G. Fechteler / C. Mücher

Group B:
Tuesday, 24/10/19, 13.30-15.00, G 227
From Tuesday 28/10/19: 13.30-15.15, G 227a
L. Shkoza / G. Fechteler / C. Mücher

3. Programming and Scripting

Python Block Course (6 ECTS)
S. Scholz / et al.
Monday, 14/10/2019, 10:00 – 13:15, G 227a
Tuesday, 15/10/2019, 10:00 – 13:15, G 227a
Wednesday, 16/10/2019, 10:00 – 13:15, G 227a
Thursday, 17/10/2019, 10:00 – 13:15, G 227a
Friday, 18/10/2019, 10:00 – 13:15, G 227a

Please note:
This course is recommended as preparation for “Introduction to Computation for the Social Sciences”. The obligatory registration for this course will be open from 02/09/2019 – 20/09/2019. More details t.b.a in due course.

Data Analysis with R (7 ECTS)
M. Herrmann
Thursday, 08:15 – 09:45, BS 217

Datenanalyse mit R (7 ECTS)
M. Herrmann
Thursday, 10:00 – 11:30, BS 217
Programmierkurs I (Imperative Sprache) (6 ECTS)  J. Fuchs
Tuesday, 15:15 – 16:45, A 703

Tutorial:
Six groups, see ZEuS

Programmierkurs III (Deklarative Sprache) (6 ECTS)  L. Wörteler
Tuesday, 13:30 – 15:00, A 704

4. Social Science Applications

Computational Social Science Seminar (6 ECTS)  K. Donnay
Monday, 10:00 – 11:30, G 306
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<td>Empirical Research Methods (L) / Shikano</td>
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<td>Lineare Algebra (L) / Kuhlmann</td>
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<td>Information Visualization II (L) / Keim</td>
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<td>Data Mining Basi Concepts (T) / Fuchs/Keim Group A</td>
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<td>Analyse und Visualisierung (T) / Group A</td>
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<td>Research Design I: Research Design and Causal Inference (L) / Selb</td>
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<td>Statistics I (L) / Shevchenko</td>
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<td>Analyse und Visualisierung von Informationen (L) / Keim</td>
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<td>Advanced Econometrics (L) / Pohlmeier</td>
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