Course Catalogue

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

First Year/Second Year

Winter Semester 2018/2019

Version: 09/08/2018
Course Advice for Students of the
Master's Programme in Social and Economic Data Science

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Email: seds.msc@uni-konstanz.de

Dates of the Winter Semester 2018/2019

Welcome Programme for new Master’s students: Monday, 15th October 2018
Lectures begin: Monday, 22nd October 2018
Lecture-free period: Friday, 22nd December 2018 – Friday, 5th January 2019
Lectures end: Friday, 16th February 2019

Registration period of the Department of Economics:
Seminar registration period for Summer Semester 2019: Tuesday, 22nd January – Monday, 28th January 2019
Exam Registration period: Tuesday, 22nd January – Monday, 28th January 2019
Examination period I: Wednesday, 13th February – Saturday, 02nd March 2019
Exam Registration period II: Tuesday, 19th March – Monday, 25th March 2019
Examination period II: Saturday, 30th March – Thursday, 18th April 2019

Registration periods of the Department of Politics and Public Administration:
Exam registration period: tba
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: [link]
Registration Seminars: tba

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
[link]

Exam Registration Periods of the Department of Mathematics and Statistics

Registration: Students can apply up to one week before the exam.
Examination office: [link]

Exam Registration Periods of the Department of Psychology

Registration period (StudIS): tba
Examination office (Elke Stepczynski): [link]
PREPARATION COURSES for new master’s students
(free of charge, no registration necessary)

Department of Economics:

PREP 1: Advanced Econometrics
(A. Simmet)
(Duration 5 days)

Wednesday, 10/10/2018, 13:30 – 16:45, room tba
Thursday, 11/10/2018, 13:30 – 16:45, room tba
Friday, 12/10/2018, 13:30 – 16:45, room tba
Monday, 15/10/2018, 13:30 – 16:45, room tba
Tuesday, 16/10/2018, 13:30 – 16:45, room tba

See ZEuS: https://zeus.uni-konstanz.de:443/hioserver/pages/startFlow.xhtml?flowId=showEvent-flow&unitId=4001&termYear=2018&termTypeValueId=2&navigationPosition=studiesOffered%2CsearchCourses

Department of Computer Sciences:

Brückenkurs Mathematik
(S. Kosub)
(Duration 5 days, geman only)
See ZEuS: https://zeus.uni-konstanz.de:443/hioserver/pages/startFlow.xhtml?flowId=showEvent-flow&unitId=4879&termYear=2018&termTypeValueId=2&navigationPosition=studiesOffered,searchCourses

Java Crash Course
(F. Götz-Hahn)
(Duration 3 days)
See ZEuS: https://zeus.uni-konstanz.de:443/hioserver/pages/startFlow.xhtml?flowId=showEvent-flow&unitId=4879&termYear=2018&termTypeValueId=2&navigationPosition=studiesOffered,searchCourses
First Semester

1. Introduction to Computational Methods for the Social Sciences

Introduction to Computation for the Social Sciences (8 ECTS)  K. Donnay
Monday, 11:45 – 13:15, F 428
Tutorial:  K.Donnay
Wednesday, 10:00 – 11:30, D 247

Please note: In preparation for “Introduction to Computation for the Social Sciences” we advise all new MSc SEDS Students to take the Phython Block Course in October (see page 7 or: https://zeus.uni-konstanz.de:443/hioserver/pages/startFlow.xhtml?flowId=showEvent-flow&unitId=18857&termYear=2018&termTypeValueId=2)

2. Foundations of Data Science

Computer Science

Information Visualization I (6 ECTS)  D. Keim
Monday, 13:30 – 15:00, C 358
Tutorial:
Thursday, 11:45 – 13:15, C 358

Konzepte der Informatik (6 ECTS)  B. Pampel
Tuesday, 13:30 – 15:00, A 702
Friday, 10:00 – 11:30, A 702
Tutorial:
Wednesday, 11:45 – 13:15, D 406
Thursday, 17:00 – 18:30, M 630

Only in combination with

Programmierkurs I (6 ECTS)  J. Fuchs
Wednesday, 10:00 – 11:30, L 602
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)  tba
Monday, 10:00 – 11:30, room tba
Thursday, 10:00 -11:30, room tba
Mathematik für Wirtschaftswissenschaftler I (9 ECTS)   J. Schropp
Monday, 08:15 – 09:45, room tba
Thursday, 10:00 – 11:30, room tba

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, E 402

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

Methoden der empirischen Politik & Verwaltungsforschung (9 ECTS)   S. Shikano
Tuesday, 17:00 – 18:30, A 600
Wednesday, 10:00 – 11:30, A 600

Empirie: Quantitative Methoden I (6 ECTS)   T. Hinz
Monday, 15:15 – 16:45, room tba
Tutorial:
5 groups, see ZEuS

Methoden I (5 ECTS)   UD. Reips
Monday, 13:30 – 15:00, R 711
Monday, 15:15 - 16:45, R 711

Statistics

Statistik I (6 + 2 ECTS)   V. Véteinsdóttir
Tuesday, 11:45 – 13:15, R 513
Tutorial:
Wednesday, 11:45 – 13:15, R 513
Third Semester

1. Advanced Methods: Computer Science

Algorithmen und Datenstrukturen and Programmierungskurs III (9+6 ECTS)  
F. Schreiber  
Monday, 15:15 – 16:45, A 702  
Tuesday, 15:15 – 16:45, A 702  
Tutorials:  
4 groups, see ZEuS  

Programmierungskurs III (6 ECTS)  
M. Waldvogel  
Friday, 13:30 – 15:00, R 712

2. Advanced Methods: Statistics

Advanced Econometrics (10 ECTS)  
W. Pohlmeier  
Wednesday, 08:15 – 09:45, room tba  
Friday, 08:15 – 09:45, room tba  
Tutorial:  
5 groups, see ZEuS

Advanced Time Series Analysis (8 ECTS)  
R. Brüggemann  
Monday, 10:00 – 11:30, room tba  
Friday, 08:15 – 09:45, room tba  
Tutorial:  
Friday: 08:15 – 09:45, room tba  
R. Braun

3. Programming and Scripting

Python Block Course (6 ECTS)  
A. Berg / MP. King  
Monday, 15/10/2018, 10:00 – 13:15, G 309  
Tuesday, 16/10/2018, 10:00 – 13:15, G 309  
Wednesday, 17/10/2018, 10:00 – 13:15, G 309  
Thursday, 18/10/2018, 10:00 – 13:15, G 309  
Friday, 19/10/2018, 10:00 – 13:15, G 309  
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 in ZEuS from 01/09/2018 – 07/10/2018.

Introduction to Visualization with D3 (3 ECTS)  
K. Donnay/  
Monday, 22/10/2018, 10:00 – 11:30, L 829  
Monday, 29/10/2018, 10:00 – 11:30, L 829  
Monday, 05/11/2018, 10:00 – 11:30, L 829  
Monday, 12/11/2018, 10:00 – 11:30, L 829  
Monday, 19/11/2018, 10:00 – 11:30, L 829  
Monday, 26/11/2018, 10:00 – 11:30, L 829
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 (6 ECTS)  
J. Fuchs  
Tuesday, 10:00 – 11:30, R 611  
Tutorial:  
Six groups, see ZEuS

Programmierkurs III (6 ECTS)  
M. Waldvogel  
Friday, 13:30 – 15:00, R 712

### 4. Social Science Applications

Computational Social Science Seminar (6 ECTS)  
K. Donnay  
Tuesday, 10:00 – 11:30, F 428
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<td>Lineare Algebra (L) / tba</td>
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<td>- Diskrete Mathematik und Logik (L) / Kosub</td>
<td>Mathematik für Wirtschaftswissenschaftler I (L) / Schropp</td>
<td>Konzepte der Informatik (L) / Pampel</td>
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<td>- Methoden der empirischen Politik &amp; Verwaltungsforschung (L) / Shikano</td>
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<td>Introduction to Computational Methods for the Social Sciences (L) / Donnay</td>
<td>Research Design I: Research Design and Causal Inference (L) / Selb</td>
<td>Konzepte der Informatik (T) / Pampel</td>
<td>Information Visualization I (T) / Keim</td>
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<td>Statistik I (L) / Véteinsdóttir</td>
<td>Introduction to Survey Methodology (T) / Selb</td>
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L = Lecture, T = Tutorial, S = Seminar
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<td>Advanced Econometrics (L) / Pohlmeier</td>
<td>Data Analysis with R (S) / Herrmann</td>
<td>Advanced Econometrics (L) / Pohlmeier</td>
<td>Advanced Time Series Analysis (T) / Braun</td>
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<td>Advanced Time Series Analysis (L) / Brüggemann</td>
<td>Programmierungkurs I (L) / Fuchs</td>
<td>Algorithmen und Datenstrukturen (L) / Schreiber</td>
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<td>Computational Social Science Seminar (S) / Donnay</td>
<td>Programmierekurs III (L) / Waldvogel</td>
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