Course Catalogue

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

First Year/Second Year

Winter Semester 2021/2022

Version: 09/08/2021
Course Advice for Students of the Master's Programme in Social and Economic Data Science

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Dates of the Winter Semester 2020/2021

Welcome Programme for new Master’s students Monday, 11th – Friday, 22nd October 2021
Please check for updates concerning location here

Lectures begin: Monday, 25th October 2021
Lecture-free period: Friday, 24th December 2021 – Thursday, 6th January 2022
Lectures end: Tuesday, 12th February 2022

Registration period of the Department of Economics:

Seminar registration period for
Winter Semester 2021: 29th June – 5th July 2021

Seminar registration period for
Summer Semester 2022: 18th January – 25th January 2022

Exam Registration period: 18th January – 25th January 2022
Examination period I: 9th February – 26th February 2022

Exam Registration period: 15th March – 21st March 2022
Examination period II: 26th March – 14th April 2022

See: https://www.wiwi.uni-konstanz.de/en/advice-and-service/examination-office/

Registration period of the Department of Politics and Public Administration:

Exam and Seminar Registration period I: 01/12/2020 – 15/01/2021

Registration period II: 16/03/2021 – 20/03/2021

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 ZEuS or with the offline-registration-form within the registration period
Reg. Period I (lectures): t.b.a
Reg. Period II (lectures): t.b.a (if available)
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 (ZEuS): 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: t.b.a.
https://www.psychologie.uni-konstanz.de/studieren/pruefungen-krankheit/
Examination office (Serpil Hummel): https://www.psychologie.uni-konstanz.de/beratung-und-service/ansprechpartner/
PREPARATION COURSES for new master’s students
(free of charge)

Department of Economics:

PREP 1: Econometrics (Video lectures and Q&A sessions) W. Pohlmeier
Thursday, 7/10/21, 17:00-18:30, online
Tuesday, 12/10/21, 17:00-18:30, online
Monday, 18/10/21, 17:00-18:30, online
See here

PREP 2: Quantitative Methods in Economics J. Alasalmi
(Link to lecture videos will be sent around via e-mail)

Thursday, 11/10/21, 14:00 - 14:30, Intro, online
Monday, 14/10/21, 14:00 - 15:30, Q&A meeting I, online
Tuesday, 18/10/21, 14:00 - 15:30, Q&A meeting II, online
Monday, 20/10/21, 14:00 - 15:30, Q&A meeting III, online
Friday, 22/10/21, 14:00 - 15:30, Q&A meeting IV, online
See here

Department of Computer Sciences:

Kompaktkurs Mathematik 1 (Duration: 5 days, online, German only) S. Kosub
Monday, 11/10/21, 13:30 – 16:00, R712
Tuesday, 12/10/21, 9:00 – 16:00, R513
Wednesday, 13/10/21, 9:00 – 16:00, R513
Thursday, 14/10/21, 9:00 – 16:00, R513
Friday, 15/10/21, 9:00 – 16:00, A701
See ZEuS

Python Block Course see “Programming and Scripting” on page 8!
First Semester

1. Introduction to Computational Methods for the Social Sciences

*Introduction to Computation for the Social Sciences* (9 ECTS) J. Kulshrestha
Monday, 11:45 – 13:15, online

**Tutorial:**
- Group 1: Friday, 10:00 – 11:30, D522 M. Wessel/
- Group 2: Friday, 11:45 – 13:15, D522 J. Wassmuth

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 “Programming and Scripting”).

2. Foundations of Data Science

**Computer Science**

*Data Mining: Basic Concepts* (6 ECTS) J. Fuchs / D. Keim
Thursday, 11:45 – 13:15, R513

**Tutorial:**
- Group 1: Wednesday, 11:45 – 13:15, ZT702
- Group 2: Wednesday, 13:30 – 15:00, ZT702
- Group 3: Wednesday, 15:15 – 16:45, ZT702

The course “Data Visualisation: Basic Concepts” will be offered during the summer semester.

*Konzepte der Informatik* (6 ECTS) B. Pampel
Monday, 10:00 - 11:30, R712
Tuesday, 11:45 – 13:15, R712

Tutorial:
Six groups, see ZEuS

Only in combination with

*Programmierkurs I (Imperative Sprache)* (6 ECTS) J. Fuchs
Tuesday, 15:15 – 16:45, online

Tutorial:
Six groups, see ZEuS
Mathematics

**Diskrete Mathematik und Logik (9 ECTS)**
Wednesday, 10:00 – 11:30, online
Thursday, 10:00 – 11:30, online

Tutorial:
Six groups, see [ZEuS](ZEuS)

**Lineare Algebra I (6 ECTS)**
Group 1: Monday, 13:30 – 15:00, A 600
Group 2: Thursday, 10:00 – 11:30, A 600

Tutorial: t.b.a.

**Mathematik für Wirtschaftswissenschaftler I (9 ECTS)**
Thursday, 08:15 – 09:45, A 600
Friday, 11:45 – 13:15, A 600

Tutorial:
15 Groups, see [ZEuS](ZEuS)

**Datenmathematik (9 ECTS)**
Tuesday, 15:15 – 16:45, R513
Thursday, 13:30 – 15:00, R611

Tutorial:
4 Groups, see [ZEuS](ZEuS)

Social Science Methods

**Introduction to Survey Methodology (6+3 ECTS)**
Thursday, 11:45 – 13:15, online

Tutorial: tba

**Research Design I: Research Design and Causal Inference (9 ECTS)**
Group 1: Wednesday, 17:00 – 18:30, C423
Group 2: Wednesday, 17:00 – 18:30, D432
Group 3: Wednesday, 17:00 – 18:30, D433
Group 4: Wednesday, 17:00 – 18:30, online

**Empirical Research Methods (9 ECTS)**
Tuesday, 15:15 – 16:45, online
Wednesday, 10:00 - 11:30, online

**Empirie: Quantitative Methoden (6 ECTS)**
Tuesday, 15:15 – 16:45, R611

Tutorial:
6 groups, see [ZEuS](ZEuS)
Statistics

**Statistik 1 (5 ECTS)**
Tuesday, 11:45 – 13:15, online

Tutorial:
Wednesday, 11:45 – 13:15, online

Y. Shevchenko

Third Semester

1. **Advanced Methods: Computer Science**

**Advanced SQL (9 ECTS)**
Monday, 13:30 - 15:00, online
Tuesday, 10:00 - 11:30, online

Tutorial:
Wednesday, 10:00 - 11:30, online

AG Scholl

**Konzepte der Programmierung (6 ECTS)**
Tuesday, 08:15 – 9:45, A703
Wednesday, 08:15 – 9:45, R513

Tutorial:
4 Groups, see ZEuS

M. Grossniklaus

Only in combination with

**Programmierkurs III (Deklarative Sprache) (6 ECTS)**
Wednesday, 13:30 – 15:00, R712

L. Wörteler

**Network Modeling and Relational Machine Learning (6 ECTS)**
Wednesday, 8:15 – 9:45, online

Tutorial:
Thursday, 8:15 – 9:45, online

J. Lerner

2. **Advanced Methods: Statistics**

**Advanced Econometrics (10 ECTS)**
Wednesday, 08:15 - 09:45, A703
Friday, 08:15 - 09:45, A703

Tutorial:
4 Groups, see ZEuS

W. Pohlmeier
3. Programming and Scripting

**Python Block Course** (6 ECTS) – 5 days
October 2021, 18/10/21 – 22/10/21, online
D. Krieger et.al
Registration procedure etc. t.b.a.
Please note:
This course is recommended as preparation for “Introduction to Computation for the Social Sciences”.

**Data Analysis with R** (7 ECTS, English)
Thursday, 08:15 – 09:45, online
M. Herrmann

**Datenanalyse mit R** (7 ECTS, German)
Thursday, 10:00 – 11:45, online
M. Herrmann

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

**Programmierkurs III (Deklarative Sprache)** (6 ECTS)
Wednesday, 13:30 – 15:00, R712
L. Wörteler

4. Social Science Applications

**Multi-level Data Analysis** (9 ECTS, Dept. Sociology)
Friday, 10:00 – 11:30, E405
M. Buis

**Wahlsystemforschung** (6 ECTS, Dept. Politics and Public Admin.)
Tuesday, 13:30 – 15:00, online
S. Shikano

**Create Internet-based experiments, conduct Big Data research, write articles** (4 ECTS, Dept. Psychology) – 4 days
Monday, 18/10/2021, 11:00 – 17:00, G304
Tuesday, 19/10/2021, 11:00 – 17:00, G304
Wednesday, 20/10/2021, 11:00 – 17:00, G304
Friday, 04/02/2022, 13:30 – 18:00, H309
U. Reips
All seminars listed above are examples for seminars for the Module Social Science Applications. But as usual it is up to every SEDS student to search in ZEuS for other seminars/lectures that can be recognised within the Advanced Modules.

For questions regarding seminars/lectures please proceed as follows:

- Check if your desired seminar/lecture is listed in the MSc SEDS Additional Course /Seminar list
- If not, send an email to the MSc SEDS Programme coordinator by Friday, 29th of October to clarify if the seminar/lecture is suitable in one of the advanced modules.

Please note:

Because of the Covid-19 situation we highly recommend contacting the lecturers of the seminars prior to the start of the semester to make sure that there are spots for MSc SEDS students available.

FOR MORE INFORMATION ON THE CONTENT AND POSSIBLE REGISTRATION PROCEDURES FOR ON-CAMPUS COURSES, PLEASE CHECK THE HOMEPAGE OF THE RESPECTIVE LECTURER AND ZEUS!
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<td>Empirical Research Methods (L) / Shikano</td>
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<td>Data Mining Basic Concepts (T) / Fuchs/Keim Group 1</td>
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<td>Statistik 1 (L) / Shevchenko</td>
<td>Statistik 1 (T) / Miccoli</td>
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