

UNIVERSITY OF  
LUCERNE

FACULTY OF HUMANITIES AND  
SOCIAL SCIENCES



## COURSE OFFERING

LUCERNE MASTER IN COMPUTATIONAL  
SOCIAL SCIENCES (LUMACSS)  
FALL SEMESTER 2022



|                                                        |   |
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## Programme Director and Co-Initiators

|                                           |                                                                                                                                                                                         |                        |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <b>LUMACSS<br/>Programme<br/>Director</b> | <b>Prof. Dr. Alexander H. Trechsel</b><br><a href="mailto:alexander.trechsel@unilu.ch">alexander.trechsel@unilu.ch</a><br>Professor of Political Science<br>and Political Communication | 3.B12<br>041 229 55 90 |
| <b>LUMACSS<br/>Co-Initiators</b>          | <b>Prof. Dr. Sophie Mützel</b><br><a href="mailto:sophie.muetzel@unilu.ch">sophie.muetzel@unilu.ch</a><br>Professor of Sociology with<br>Emphasis on Media and<br>Social Networks       | 3.A33<br>041 229 55 63 |
|                                           | <b>PD Dr. Mira Burri</b><br><a href="mailto:mira.burri@unilu.ch">mira.burri@unilu.ch</a><br>Senior Lecturer<br>Faculty of Law                                                           | 4.A31<br>041 229 53 71 |
|                                           | <b>Dr. Andrea De Angelis</b><br><a href="mailto:andrea.deangelis@unilu.ch">andrea.deangelis@unilu.ch</a><br>Senior Researcher and Lecturer<br>Department of Political Science           |                        |

## Administration and Programme Coordinator

|                                          |                                                                                               |                        |
|------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------|
| <b>Department<br/>Address</b>            | <b>Department of Political Science</b><br>Froburgstrasse 3<br>P.O. Box 4466, 6002 Lucerne     |                        |
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| <b>Website</b>                           | <a href="http://www.unilu.ch/polsem">www.unilu.ch/polsem</a>                                  |                        |
| <b>Phone</b>                             | 041 229 55 91                                                                                 |                        |
| <b>Fax</b>                               | 041 229 50 01                                                                                 |                        |
| <b>Administration</b>                    | <b>Adriana Sbarra</b><br><a href="mailto:adriana.sbarra@unilu.ch">adriana.sbarra@unilu.ch</a> | 3.B04<br>041 229 55 91 |
| <b>LUMACSS<br/>Programme Coordinator</b> | <b>Nadia Bühler, MA</b><br><a href="mailto:nadia.buehler@unilu.ch">nadia.buehler@unilu.ch</a> | 3.A53 (Mo-Thu)         |

## Semester Dates

### Fall semester 2022

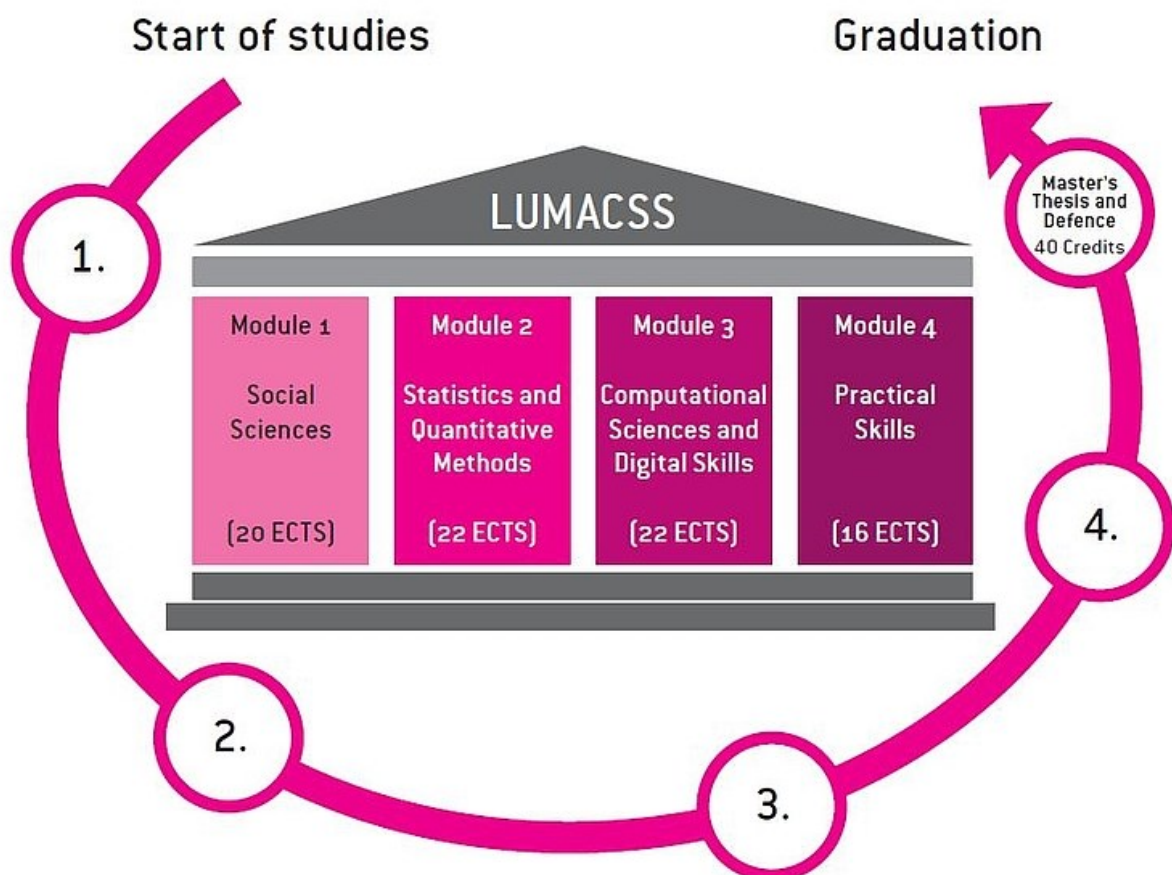
Courses take place from Monday, September 19<sup>th</sup> to Friday, December 23<sup>rd</sup> 2022

### There are no courses taking place on the following dates:

|                                    |                                             |
|------------------------------------|---------------------------------------------|
| Tuesday, November 1 <sup>st</sup>  | All Saints' Day                             |
| Thursday, November 3 <sup>rd</sup> | Dies Academicus, no lectures in the morning |
| Thursday, December 8 <sup>th</sup> | Immaculate conception                       |

## Study Programme

The Lucerne Master in Computational Social Sciences (LUMACSS) is an interdisciplinary programme that equips graduates with the knowledge and skills needed to tackle the main social challenges of the digital age. LUMACSS has been specially designed for two kinds of students: social science graduates seeking to strengthen their data analytics and digital computation skills; and computational sciences graduates eager to learn how to best apply their computation skills to social sciences data and research questions. LUMACSS provides a unique opportunity to combine the social sciences and the computational sciences. The programme offers in-depth teaching and research on digitization and its manifold effects on modern polities, societies and economies.



The four LUMACSS modules combine various disciplines such as economics, political science, sociology, law, history and the computational sciences. The broad-based programme also develops statistical and computational methods and thus builds the key skills for the future job market. Coursework comprises a total of 120 ECTS and includes a final master's thesis and its defence.

# Musterstudienplan: MA Studiengang Lucerne Master in Computational Social Sciences (LUMACSS)

Studienbeginn ab HS 2022

| Modul                                                                                                                                                                                                                                       | Studienanforderung                                                                   | Beschreibung                                                                  | Credits<br>120 | ☑ |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------------|---|
| Social Sciences                                                                                                                                                                                                                             | Vorlesungen und/oder Kolloquialvorlesungen                                           | -                                                                             | 6              |   |
|                                                                                                                                                                                                                                             | Masterseminar                                                                        | -                                                                             | 4              |   |
|                                                                                                                                                                                                                                             | Masterseminar                                                                        | -                                                                             | 4              |   |
|                                                                                                                                                                                                                                             | schriftliche Masterseminararbeit                                                     | -                                                                             | 6              |   |
| Statistics and Quantitative Methods                                                                                                                                                                                                         | Masterseminar                                                                        | -                                                                             | 4              |   |
|                                                                                                                                                                                                                                             | Masterseminar                                                                        | -                                                                             | 4              |   |
|                                                                                                                                                                                                                                             | Methodenseminar                                                                      | Research Design and Methods in Quantitative Research I                        | 4              |   |
|                                                                                                                                                                                                                                             | Hauptseminar                                                                         | Introduction to Statistics for the Social Sciences                            | 4              |   |
|                                                                                                                                                                                                                                             | schriftliche Masterseminararbeit                                                     | -                                                                             | 6              |   |
| Computational Sciences and Digital Skills                                                                                                                                                                                                   | Masterseminar                                                                        | Introduction to R for Data Science & Computational Social Science             | 4              |   |
|                                                                                                                                                                                                                                             | Masterseminar                                                                        | Data Mining in R                                                              | 4              |   |
|                                                                                                                                                                                                                                             | Masterseminar                                                                        | Introduction to Python                                                        | 4              |   |
|                                                                                                                                                                                                                                             | weitere Studienleistungen                                                            | -                                                                             | 8              |   |
|                                                                                                                                                                                                                                             | Abschlusskolloquium                                                                  | -                                                                             | 2              |   |
| Practical Skills                                                                                                                                                                                                                            | Variante 1:<br>freie Studienleistungen <sup>1</sup> (16 Cr)                          | freie Studienleistungen                                                       | 16             |   |
|                                                                                                                                                                                                                                             | Variante 2: Capstone-Projekt (10 Cr),<br>freie Studienleistungen <sup>1</sup> (6 Cr) | Absolvierung eines selbst organisierten Projekts                              |                |   |
|                                                                                                                                                                                                                                             | Variante 3: Praktikum (10 Cr), freie<br>Studienleistungen <sup>1</sup> (6 Cr)        | Absolvierung eines selbst organisierten Praktikums von min. 8 Wochen Vollzeit |                |   |
| Masterverfahren                                                                                                                                                                                                                             |                                                                                      |                                                                               |                |   |
|                                                                                                                                                                                                                                             | MA-Arbeit                                                                            | Masterarbeit (30 Cr) mit mündlicher Verteidigung (10 Cr)                      | 40             |   |
| Der Musterstudienplan entspricht der Wegleitung zur StuPo 2016 mit Revision (Stand 1. August 2022) - Masterstufe.<br>Download unter: <a href="http://www.unilu.ch/fakultaeten/ksf-reglemente/">www.unilu.ch/fakultaeten/ksf-reglemente/</a> |                                                                                      |                                                                               |                |   |

<sup>1</sup> aus dem Masterlehrangebot der Kultur- und Sozialwissenschaftlichen Fakultät (KSF). Bis zu 6 Credits können im freiwilligen Bereich universitäres Engagement belegt werden.

## Course Offering in Fall 2022

For an up to date and more detailed **electronic version** of our course offering visit:  
[https://portal.unilu.ch/stg/ma\\_lumacss/sem=HS22](https://portal.unilu.ch/stg/ma_lumacss/sem=HS22)

Please note that **German titles** of courses indicate that courses are taught in German.

Please note that there are **different procedures for registration** at the different faculties and for courses taught via Campus Luzern:

**Faculty of Humanities and Social Sciences:** Registration two weeks before the start of the semester till the end of the first two weeks of the semester via [Uniportal](#)

**Faculty of Law:** Registration mid-semester, [click here for more information](#)

**Faculty of Economics:** Registration mid-semester, [click here for more information](#)

**Department of Health Sciences and Medicine:** Registration end of semester, [click here for more information](#)

**Digital Skills:** Registration via registration form, [click here for more information](#)

### Module Social Sciences

| Format | Lecturer and Title                                                                                                | Dates                        |
|--------|-------------------------------------------------------------------------------------------------------------------|------------------------------|
| VL     | Burri: International Intellectual Property Law                                                                    | We, 14.15-16.00              |
| VL     | Burri: International Law of Contemporary Media                                                                    | We, 10.15-12.00              |
| VL     | Karavas: Law and Society in a Global Context                                                                      | Tue, 10.15-12.00             |
| VL     | Gruber: Critical Legal Tech: Wissenschaftliche Perspektiven auf Technologie und Digitalisierung im Recht          | Tue, 10.15-12.00             |
| VL     | Gruber/Karavas: Recht der digitalen Medien                                                                        | Thu, 10.15-12.00             |
| VL     | Furrer: Digitale Rechtsgeschäfte                                                                                  | Thu, 16.15-18.00             |
| VL     | Blickenstorfer: Marketing Technology                                                                              | Fortnightly Tue, 14.15-18.00 |
| VL     | Puschmann: FinTech & InsurTech – Digitalization of the Financial Services Industry                                | Tue, 14.15-16.00             |
| KVL    | Trechsel: Political Behaviour and Communication                                                                   | Tue, 12.15-14.00             |
| KVL    | Schaffer: Einführung in die Internationalen Beziehungen                                                           | We, 10.15-12.00              |
| KVL    | Blatter: Einführung in die Demokratietheorien                                                                     | Tue, 14.15-16.00             |
| KVL    | Rieder: Policy-Analyse in Zeiten des Klimawandels                                                                 | Mo, 14.15-16.00              |
| MSE    | Raab: Medien/r/evolution                                                                                          | Block course                 |
| MSE    | Mützel: Relationale Soziologie: Theoretische Ansätze und empirische Studien                                       | Tue, 16.15-18.00             |
| MSE    | Scherz: Legitimacy of International Institutions: From the EU over Human Rights bodies to the UN Security Council | Block course                 |
| MSE    | Oglesby: Researching consumers' behaviour, emotions and attitudes in the digital era                              | Thu, 10.15-12.00             |
| MSE    | Drews: Digital Politics & Democracy                                                                               | Block course                 |
| MSE    | Wurpts: Netzwerkanalyse: neue Entwicklungen                                                                       | Mo, 10.15-12.00              |
| MSE    | Tellidou: EU's Foreign and Security Policy in Cyberspace                                                          | Block course                 |

|     |                                                                                                     |                             |
|-----|-----------------------------------------------------------------------------------------------------|-----------------------------|
| MSE | Mützel: Creator Economy: zwischen Metriken, Marketing und Marken                                    | Mo, 14.15-16.00             |
| MSE | Arrighi: Ethnicity, Territory and Political Conflict in Europe                                      | Fortnightly Fr, 12.15-16.00 |
| MSE | Heumann: Rechtspopulismus und Sozialforschung (Research Design and Methods in Qualitative Research) | We, 10.15-12.00             |

### Module Statistics and Quantitative Methods

| Format | Lecturer and Title                                               | Dates            |
|--------|------------------------------------------------------------------|------------------|
| MSE    | Ströbele: Research Design and Methods in Quantitative Research I | We, 08.15-10.00  |
| HS     | Schwegler: Sozialwissenschaftliche Datenanalyse mit R            | We, 14.15-16.00  |
| KVL    | Fenzl: Introduction to Statistics for the Social Sciences        | Thu, 14.15-16.00 |

### Module Computational Sciences and Digital Skills

| Format | Lecturer and Title                                                                  | Dates                                          |
|--------|-------------------------------------------------------------------------------------|------------------------------------------------|
| VL     | Meierer/Bachmann: Python – A non-technical introduction for business analytics      | Block course                                   |
| VL     | Mannino: Supervised Machine Learning                                                | Block course                                   |
| VL     | Meierer/Löwenberg: Machine Learning for mere mortals: Workflow, key models & coding | Block course                                   |
| VL     | Waelti: Introduction to Computer Science and Programming                            | Thu, 16.15-19.00                               |
| VL     | Pouly: Machine Learning in Marketing                                                | Tue, 10.15-12.00, fortnightly Tue, 08.15-10.00 |
| VL     | Cilurzo/Habicht: Data Science Toolkits and Architectures                            | Fortnightly Thu, 16.15-19.00                   |
| VL     | Sontheim: Data Handling                                                             | Block course                                   |
| VL     | Scheufele: Analysing and Forecasting Economic Time Series                           | We, 16.15-18.00                                |
| WOS    | Attalides: Information Visualizations in R                                          | Infos on <a href="#">Digital Skills</a>        |
| WOS    | Attalides: Building packages in R and version control                               | Infos on <a href="#">Digital Skills</a>        |
| WOS    | Attalides: Introduction to Shiny in R                                               | Infos on <a href="#">Digital Skills</a>        |
| WOS    | Attalides: Introduction to web scraping and text analysis in R                      | Infos on <a href="#">Digital Skills</a>        |
| MSE    | De Angelis: Introduction to R for Data Science & Computational Social Science       | block course                                   |
| KOL    | Blatter: Kolloquium BA- und MA-Abschlussarbeiten (qualitative, theoretische Arbeit) | We, 18.15-20.00                                |

|     |                                                                         |                  |
|-----|-------------------------------------------------------------------------|------------------|
| KOL | Mützel: Kolloquium Medien und Netzwerke (laufende Abschlussarbeiten)    | Mo, 16.15-18.00  |
| KOL | Schaffer: Kolloquium BA- und MA-Abschlussarbeiten (quantitative Arbeit) | Tue, 18.15-20.00 |

## Module Practical Skills

In the module on Practical Skills, students have access to the complete offering of the Faculty of Humanities and Social Sciences.

However, the following courses are especially recommended for LUMACSS-students:

| Format | Lecturer and Title                                                                   | Dates                       |
|--------|--------------------------------------------------------------------------------------|-----------------------------|
| UEB    | Huber: Die unsichtbaren Seiten der Geschichte, Erinnerungskultur und Digital History | Mo, 14.15-16.00             |
| UEB    | Speich Chassé: Wie der PC in die Schweiz kam                                         | Fortnightly Fr, 14.15-16.00 |

## Legend

HS: Hauptseminar; KOL: Kolloquium; KVL: Kolloquialvorlesung; LKK: Lektürekurs; MSE: Masterseminar; SOV: Sonderveranstaltung; UEB: Übung; VL: Vorlesung; WOS: Workshop