



Introduction to Empirical Legal Studies (Fall 2023)

Syllabus

No.	Date	Time	Topic	Literature	Exercises
1	Tue, 19.09.2023, RAK-E-8	16:15 - 18:00	Introduction to ELS (1) A. Introducing Empirical Legal Studies B. Administrative part C. Evidence-based Law-Making	Optional: Altwicker, Tilmann, International Legal Scholarship and the Challenge of Digitalization, Chinese Journal of International Law [ChinJIL] 18 (2019), 217–246 https://academic.oup.com/chinesejil/article/18/2/217/5510128 (open access)	
2	Tue, 26.09.2023, Podcast NO CLASS (PODCAST ONLY!)	16:15 - 18:00	Introduction to ELS (2) A. Evidence-based Adjudication B. Empirical Legal research C. Causality vs. Correlation	Compulsory: EM 1-18	Exercises 1
3	Tue, 03.10.2023, RAK-E-8	16:15 - 18:00	Basic Statistical Concepts and Graphs A. Basic Statistical Concepts B. Variables C. Frequency Measures for Discrete Data D. Frequency Measures for Grouped Metric Data	Compulsory: HSS 3-8; 17-24	Exercises 2



No.	Date	Time	Topic	Literature	Exercises
			E. Empirical Cumulative Distribution Function		
4	Tue, 10.10.2023, RAK-E-8	16:15 - 18:00	R-Bootcamp (1): Getting Started A. Typical ELS Research Questions B. Workflow of an ELS Project C. Empirical Research Designs D. Criticizing Empirical Research E. Basic R (1) F. Solution to Exercises 1-2	Compulsory: EM 23-58; 70-85; 95-116; HSS 399 Optional: DataCamp Getting Started with R Cheat Sheet (https://www.datacamp.com/cheat-sheet/getting-started-r)	
5	Tue, 17.10.2023, RAK-E-8	16:15 - 18:00	Descriptive Statistics (1) A. What is Descriptive Statistics, why is it important? B. Definition, Properties, Applications to Legal Data of Measures of Central Tendency C. Graphical Representation of Data	Compulsory: EM 130-134; HSS 37-49; 25-30	Exercises 3
6	Tue, 24.10.2023, RAK-E-8	16:15 - 18:00	R-Bootcamp (2): Basic R Syntax A. Introduction to R Syntax B. Basic Data Structures	Compulsory: EM 124-130; 240-257; HSS 399-419	



No.	Date	Time	Topic	Literature	Exercises
			C. Data Import and Export D. Data Visualization E. Solution to Exercises 3		
7	Tue, 31.10.2023, RAK-E-8	16:15 - 18:00	Descriptive Statistics (2) A. Definition, Properties, Applications to Legal Data of Measures of Dispersion B. Distribution of Two Discrete Variables C. Measures of Association of Two Discrete Variables D. Association Between Ordinal and Metrical Variables	Compulsory: EM 134-138; 165-171; HSS 49-57; 69-91	Exercises 4
8	Tue, 07.11.2023, RAK-E-8	16:15 - 18:00	R-Bootcamp (3) A. ggplot 2 graphics B. Solution to Exercises 4	Optional: Cheat Sheet on ggplot https://rstudio.github.io/cheatsheets/data-visualization.pdf	
9	Tue, 14.11.2023, RAK-E-8	16:15 - 18:00	Probability A. Probability Theory B. Random Variables C. Selected Sampling Distributions	Compulsory: HSS 113-138; 163-167; 173-177; 179-182; EM 138-141	Exercises 5
10	Tue, 21.11.2023, RAK-E-8	16:15 - 18:00	R-Bootcamp (4) Solution to Exercises 5		



No.	Date	Time	Topic	Literature	Exercises
11	Tue, 28.11.2023, RAK-E-8	16:15 - 18:00	Inferential Statistics (1) A. Inference B. Hypothesis Testing	Compulsory: EM 143-171	Exercises 6
12	Tue, 05.12.2023, RAK-E-8	16:15 - 18:00	R-Bootcamp (5) Solution to Exercises 6		
13	Tue, 12.12.2023, RAK-E-8	16:15 - 18:00	Inferential Statistics (2) A. Linear Regression B. Advanced Topics	Compulsory: EM 173-221	Exercises 7
14	Tue, 19.12.2023, RAK-E-8	16:15 - 18:00	R-Bootcamp (6) Solution to Exercises 7		

Course Description

"Our case material is a gold mine for scientific work. It has not been scientifically exploited. ... We should critically examine all the methods now used in any of the social sciences and having any useful degree of objectivity." Herman Oliphant (1928)

What was called for in this quote almost 100 years ago is only gradually being realized in our time. Empirical legal research, i.e. data-based research on the origins and effects of law, is currently developing a great deal of momentum. Typical questions that interest empirical legal researchers are for example: Do female judges decide differently than male judges? Can judgments of the European Court of Human Rights be predicted? What patterns of citation can be discerned in case law? Among others, the lecture explores the following questions: What is empirical (legal) research and what is it used for? How do lawyers and courts use findings from empirical research? What are the phases of an empirical research project? How is legal data collected? What are the methods of analysis? How are empirical results communicated? What are the limits of empirical legal research? The course is divided into a lecture part and an exercise part. In the exercise part, an introduction to (basic) quantitative methods and the freely available statistical software R is given. Students will practice applying simple statistical methods to legal data. Examples from a variety of legal fields are analyzed.

Knowledge of statistics and R are not required.



OLAT / Podcast

This is the link to our OLAT page: <https://lms.uzh.ch/auth/RepositoryEntry/17420092905>

Please make sure to register with your name and email address on the OLAT course page ("Enrollment"): <https://lms.uzh.ch/auth/RepositoryEntry/17420092905>. This allows us to contact you in case a class has to be cancelled on short notice.

A podcast will be available for each session (lectures and R-Bootcamps) (Link see OLAT). The podcast will usually be available within 1-2 working days.

Class Survey

We want to generate and analyze our own data. Please take this survey: <https://www.uzh.ch/zi/cl/umfragen/index.php/167635?lang=en>. Participation in the survey is not obligatory and is anonymous.

Exam & Grading

The final grade will be based on the exam grade (100%).

The upcoming written examination has been scheduled for January 8, 2024, from 13:00 to 15:00, lasting a total of 120 minutes. The examination will be divided into two parts. Part A will consist of multiple-choice questions, while Part B will focus on text-based questions. It is essential for all candidates to bring a non-programmable calculator for the exam; for instance, models like the TI-30 series or CASIO fx-85GT X are acceptable. Though the examination will not directly assess your proficiency with R & RStudio, you may encounter questions related to interpreting R output. The use of laptops and cell phones during the exam is strictly prohibited. Additionally, please ensure you bring the "Collection of Formulas" booklet. This booklet should remain untouched, meaning no written additions, underlining, or highlighting will be permitted. Lastly, any PowerPoint slides bearing an asterisk (*) in the heading will not be part of the exam content.

Software

For this lecture and in the bootcamps, we will use R/RStudio. However, we aim to also provide the scripts / solutions in Python. Please make sure that you have R/RStudio properly installed on your device.

Here is how to install it:

1. **Download and install R:** <http://www.r-project.org/>
2. **Download and install R-Studio:** <http://www.rstudio.com/ide/>

Here is how to find help:

R-Manual: <https://cran.r-project.org/doc/manuals/r-release/R-intro.pdf>



R Programming 101: https://www.youtube.com/channel/UCfJyQ3P2k_SuqfxVdqIEQNw

Learn R in 39 minutes: <https://www.youtube.com/watch?v=yZ0bV2Afkjc>

Alternatively, you can install the Anaconda Distribution (includes R/RStudio and Python): <https://repo.anaconda.com/archive/> (for advanced users).

If you have **problems** installing R or RStudio: Technical support will be available on TUE, 26.9. and TUE, 3.10. before class (16:00-16:15).

Compulsory Literature

Excerpts from: **Epstein, Lee / Martin, Andrew D.**, *An Introduction to Empirical Legal Research*, Oxford: OUP 2014, <http://empiricallegalresearch.org/> (**EM**)

Note: On the accompanying website, you have access to both the data and the R-Code used in the book.

Excerpts from: **Heumann, Christian / Schomaker, Michael / Schalabh**, *Introduction to Statistics and Data Analysis: With Exercises, Solutions and Applications in R*, 2nd ed., Cham: Springer, 2022, <https://link.springer.com/book/10.1007/978-3-031-11833-3> (**HSS**)

Note: This textbook is openly available for download within the UZH IP range. It partially contains advanced material. In this class, we will focus on the introductory material only. In addition, the book contains useful exercises and solutions.

Suggested Literature

Altwickler, Tilmann, *International Legal Scholarship and the Challenge of Digitalization*, Chinese Journal of International Law [ChinJIL] 18 (2019), 217–246, <https://academic.oup.com/chinesejil/article/18/2/217/5510128> (open access)

Field, Andy / Miles, Jeremy / Field, Zoë, *Discovering Statistics Using R*, London: Sage 2012

Note: A very useful combination of R and statistics, which is even fun to read.

Goerg, Sebastian G. / Petersen, Niels, *Empirical Research and Statistics*, in Emanuel Towfigh, Niels Petersen (eds.), *Economic Methods for Lawyers*, Cheltenham: Edward Elgar 2015, 146-176, <https://www.elgaronline.com/configurable/content/9781783471669.00012.xml?t:ac=9781783471669.00012.xml> (open access)

Note: This book contains a very useful, easy to read introduction to some important concepts and contextualizes them in the field of law.

Jackson Howell E. / Kaplow, Louis / Shavell, Steven, *Analytical Methods for Lawyers*, New York: Foundation Press, 2003



Kritzer, Herbert M., Advanced Introduction to Empirical Legal Research, Cheltenham: Edward Elgar 2021

Wheelan, Charles, Naked Statistics: Stripping the Dread From the Data, New York: Norton, 2013

Note: This book contains a very useful, easy to read introduction to some important statistical concepts.

R-Bootcamps

Lectures will be complemented by R-Bootcamps, which are hands-on tutorials designed to enhance your practical skills. The primary goals of these bootcamps are to teach students the basics of R and to empower them to independently conduct basic analyses of legal data. The first of these R-Bootcamps is scheduled for Tuesday, October 10. For every R-Bootcamp, there will be a corresponding exercise sheet, with a strong emphasis on R. After each tutorial session, model solutions will be made available on OLAT for students to review. These bootcamps and the accompanying materials are essential preparation for the upcoming exam. Lastly, students are required to bring their own laptops to each session, ensuring that both R and R-Studio are installed.

Internet Resources

Data Camp: As a participant in this course, you will have free access to DataCamp - an online training which is very useful to practice your R and statistical skills (<https://www.datacamp.com/>). The access code will be posted on OLAT.

Further resources:

<https://guides.law.stanford.edu/c.php?g=685018>

<https://lib.law.uw.edu/friendly.php?s=els>

Datasets relevant to Law

<https://www.clds.uzh.ch/en/knowledge/databases.html>

OLAT Forum / Office Hours

Please ask your questions during or after the lectures. Do not use emails for your questions. Instead, pose all your questions on the OLAT Forum. Although the chair's team oversees the OLAT forum and will ultimately provide responses, we encourage all students to actively engage and attempt to answer their peers' questions.

Office hours (Prof. Altwicker): Please make an individual appointment (Ist.altwicker@rwi.uzh.ch).