

Summer term 2025

Research project: Text-based economic policy uncertainty indicators

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The aim of this course is to enable students to construct an Economic Policy Uncertainty (EPU) indicator based on textual data. To achieve this, practical teaching units will first introduce methods for obtaining relevant news article text data using APIs, web scraping, and data research. Next, students will be introduced to the fundamentals of processing text data. Finally, they will learn how to build an EPU indicator using Natural Language Processing (NLP) techniques through a step-by-step example in Python.

Using this workflow as a guide, students will develop their own EPU indicator based on a self-selected text dataset. At the end of the summer term, they will present their results.

Basic programming skills or a willingness to learn them are required. Attendance is mandatory for the in-person sessions.

Project schedule

The in-person teaching unit (TU) sessions and presentations of the research project take place on the following Tuesdays from 2 to 4 PM in Room 002:

(The schedule is subject to change.)

22.04.2025 TU: Introductory session
29.04.2025 TU: Data Collection and Preprocessing
06.05.2025 TU: Basic NLP Techniques for Constructing an EPU Indicator
13.05.2025 TU/Questions and Answers
08.07.2025 Presentations
15.07.2025 Presentations
22.07.2025 (Presentations)

Basis literature

- Scott R. Baker, Nicholas Bloom, and Steven J. Davis. Measuring economic policy uncertainty. *The Quarterly Journal of Economics*, 131(4):1593–1636, 2016
- Viktoriia Naboka-Krell. Construction and analysis of uncertainty indices based on multilingual text representations. *Economics Letters*, 237:111653, 2024

Requirements

- active participation in in-person sessions
- Completion of term paper
- Presentation of term paper
- **Basic programming skills!**

Further Information

ECTS :	6
Grade:	Passed/ failed
Umfang der Arbeit:	<u>15.000 characters (+/- 10 %, including white-spaces)</u>
Submission of the term paper:	No later than July 25
Language:	English
Presentation duration:	tba
Group work:	1-2 students are allowed.

Assignments

Each group or student will create an EPU indicator using a data set of news articles that they select in advance. **Different students or groups may not work with the same dataset.**

The assignment of data sets, groups and presentation dates will take place at the latest on May 6, 2025. Please send me an e-mail with your preferences in advance.

The assignment based on the session on May 6 is as follows:

Presentation	Group	Text data source
tba	tba	tba

References

- [1] Scott R. Baker, Nicholas Bloom, and Steven J. Davis. Measuring economic policy uncertainty. *The Quarterly Journal of Economics*, 131(4):1593–1636, 2016.
- [2] Viktoriia Naboka-Krell. Construction and analysis of uncertainty indices based on multilingual text representations. *Economics Letters*, 237:111653, 2024.