2024
CALDISS **WORKSHOPS**

Content

Update your digital skills. Learn new things.

WHAT IS CALDISS?

CALDISS is short for **C**omputational **A**nalytics **L**aboratory of **Di**gital **S**ocial **S**cience. We are here to help students and researchers at The Faculty of Social Sciences and Humanities with various kinds of data related issues and obstacles. Therefore, we provide different workshop introductions and courses within different software and its uses.

Please look through this catalogue to see our courses.

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Introduction to data analysis with R/Python

This workshop is available either in R or Python.

This workshop introduces how to do data analysis in either R or Python. Both R and Python are very powerful tools for data analysis and can be used for statistics, visualization, web scraping, machine learning, and so on. After this workshop, you will have the basic knowledge of the language and software to jump into one of our many workshops offered through this workshop catalogue.

Read more about this introduction on the next page...

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Nana Ohmeyer
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Duration

3 hours

Requirements

✓ Own laptop or MacBook. Otherwise, no further prerequisites.

Request now

Request by filling out the form here:
https://bit.ly/3aCmwsN

Or contact CALDISS: **caldiss@adm.aau.dk**

This workshop will cover:

➢ Working with the R/Python language in either RStudio (for R) or Jupyter Notebook (for Python)

➢ Creating variables and objects

➢ Importing and exporting data

➢ Creating simple visualizations

Extended introduction in R/Python

This workshop is available either in R or Python and builds on the introductory workshop. It will focus on the generic programming functions of R or Python.

Read more about this course on the next page...

Requirements

✓ Own laptop or MacBook
✓ Basic R/Python (see our **introductory workshop**)

Request now

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You will work with:

R /// Python

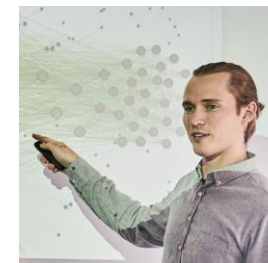## Difficulty

Beginner   Intermediate   Advanced

Duration

3 hours

Kristian G. Kjelmann
Mail: kgk@adm.aau.dk
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This workshop will cover:

➢ Basic programming skills in R/Python (if statements and for loops)

➢ Creating your own basic functions

➢ Using functional programming to create reusable code

➢ Applying functions on tabular data

Working with Table Data in R/Python

This workshop is available either in R or Python.

Building on basic knowledge of Python/R, this workshop teaches how to work with table data: from data-wrangling to doing statistics and basic visualizations.

Note! This workshop does not teach the mathematical and theoretical foundations of statistics but illustrates how to do statistics with the programming language.

Requirements

- ✓ Own laptop or MacBook
- ✓ Basic R/Python (see our **introductory workshop**)
- ✓ Statistics (preferred)

Request now

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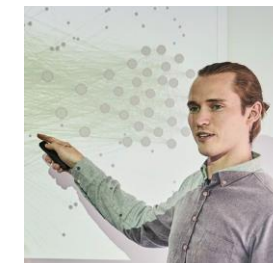## You will work with:

R /// Python

Difficulty

Beginner   Intermediate   Advanced

Duration

2x3 hours

Kristian G. Kjelmann
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This workshop will cover:

➢ Why Python/R for data wrangling and statistics?

➢ Working with data frames: data structured in rows and columns

➢ Joining, merging, and creating new variables

➢ Re-coding, filtering, and sorting data

➢ Working with text variables (strings) and dates

➢ Doing descriptive statistics and creating models

➢ Visualizing data

Text Mining and Natural Language Processing in R/Python

This workshop is available either in R or Python.

Building on basic knowledge of R/Python, this workshop will cover how to work with textual data in R/Python. The workshop will cover everything from reading text data into R/Python, various text mining techniques to basic Natural Language Processing (NLP) algorithms and tools.

Read more about this workshop on the next page...

Requirements

✓ Own laptop or MacBook

✓ Basic R/Python (see our **introductory workshop**)

Request now

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https://bit.ly/3aCmwsN

Or contact CALDISS: **caldiss@adm.aau.dk**

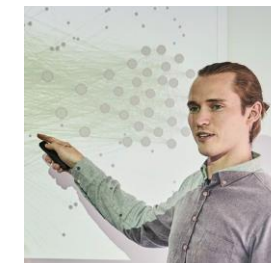
You will work with:

Difficulty

Beginner   Intermediate   Advanced

Duration

2x3 hours (2 days)

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This workshop will cover:

➢ Loading textual data into R/Python

➢ Getting familiar with essential text mining packages in R/Python

➢ Building a corpus in R/Python

➢ Pre-processing text data for analysis

➢ Using language models

➢ Exploring key features of texts (keywords, word associations)

➢ Discovering common themes in texts using topic modeling

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Web Scraping with R/Python

This workshop is available either in R or Python.

The web presents both a new data source and a new research field for researchers. This has seen an increased interest in techniques broadly referred to as "web scraping": Getting data from the web. This workshop introduces the practices of and tools for web scraping in R/Python. It covers both how the programming languages interact with the web and how they can be used for collecting data either via scraping or by using APIs.

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Duration

2x3 hours

Requirements

✓ Own laptop or MacBook
✓ Basic R/Python (see our **introductory workshop**)

Request now

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Or contact CALDISS: **caldiss@adm.aau.dk**

This workshop will cover:

➢ What is "web scraping"?

➢ How programming languages interact with the web

➢ Collecting raw website data using R/Python

➢ Parsing raw website data using R/Python

➢ Introduction to API's

➢ Good practices and considerations when working with the web

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Working with Register Data in SAS

Statistics Denmark **(https://www.dst.dk/)** possess a variety of register data containing a lot of different information. Working with data from Statistics Denmark can present a challenge compared to typical data analysis workflows due to the peculiar structure and formats of the data.

Read more about this workshop on the next page…

Requirements

✓ Own laptop or MacBook

✓ Basic SAS (see our **Introductory workshop**)

Request now

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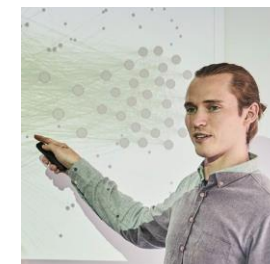
You will work with:

Difficulty

Beginner   Intermediate   Advanced

Duration

3 hours

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What are the advantages of taking this workshop?

The workshop introduces good practices for getting started working with register data - both what register data looks like and how to work with it in either SAS. The workshop contains exercises on simulated register data allowing you to familiarize yourself with the data before you have to work with the real thing.

This workshop will cover:

➢ Types and structures of register data

➢ Tips and tricks for combining register data in SAS

➢ How to use the documentation from Statistics Denmark

➢ How to handle frequently encountered problems when working with register data (string and date variables)

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Introduction to Qualitative Data Analysis with NVivo

This workshop introduces doing qualitative data analysis with NVivo.
The workshop will introduce the NVivo interface and main terminology.
Throughout the workshop, you will create your own NVivo project while being introduced to features like importing, querying, and coding data in NVivo.

It is possible to work with data of your own during the workshop.
The introduction can be supplemented with a more in-depth workshop on using NVivo.

Read more about this workshop on the next page…

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Duration

3 hours

Requirements

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This workshop will cover:

➢ What is NVivo?

➢ Navigating the NVivo user interface

➢ The main terminology of NVivo: files, codes, cases, classifications, and attributes

➢ Creating a project in NVivo

➢ Coding text files to codes and cases

➢ Querying your data for common or specific terms

Analyzing Data with NVivo

Building on a basic understanding of NVivo, this workshop introduces various tools for exploring and analyzing data in an existing NVivo project. NVivo offers a ton of functions for finding specific intersections of data, visualizing summaries, reporting results, and so on. How to further develop an NVivo project and track changes is also covered.

It is recommended to work with data of your own during the workshop.

Read more about this workshop on the next page…

Requirements

✓ Own laptop or MacBook

✓ Basic NVivo (see our **introductory workshop**)

Request now

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Or contact CALDISS: **caldiss@adm.aau.dk**
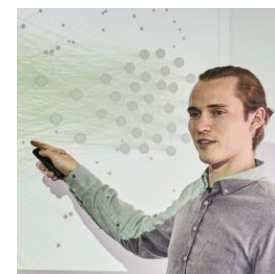
You will work with:

NVIVO

Difficulty

Beginner   Intermediate   Advanced

Duration

3 hours

Kristian Gade Kjelmann

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in

This workshop will cover:

➢ Exploring an NVivo project using diagrams

➢ Creating summary visualizations using charts

➢ Using coding and crosstab queries for finding specific excerpts

➢ Recoding and restructuring a project

➢ Using sets to structure and track changes in a project

Go learn!