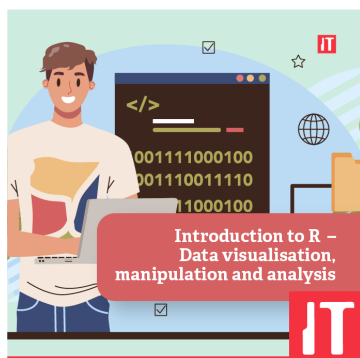


Data visualisation, manipulation and analysis



Kestus: 32 academic hours

Vana-Lõuna 39/1

[Vaata kõiki toimumiskuupäevi](#)

The world is increasingly data-driven. R is the avant garde of data science. You learn some of the most modern techniques in data science and will be able to create stunning graphs with ease, develop automatic reports and get insights from your data.

29.09-20.10.2022 koolitus on eesti keeles

The main purpose of this training is to allow the trainee to be able to independently work with R.

This is a heavily hands-on training featuring topics like:

- grammar of graphics,
- grammar of data manipulation
- Rmarkdown for reports generation.

Target audience:

The course is targeted to people who are ready to move past Excel in their data analysis. The course does not assume any previous knowledge of programming/scripting.

R is used widely in the data science world and this means pretty much every sector by now – be it IT, fintech, medicine or government sector.

- It will help you to automate data-driven reports.
- It helps you to easily understand your data by visualizing it and communicate the results using publication-ready graphs.
- It helps you to apply the most modern data analytics/machine learning concepts on your data.

After completing this course, students will be able to:

- create visualisations using grammar of graphic language
- create reports using rmarkdown
- process of data elegantly using grammar of data manipulation (dplyr and friends)

Prerequisites to the course (recommended):

The course does not have any prerequisites.

Training Principles:

The course will be in hands-on format where topics are first introduced by the lecturer, then solved individually.

The prerequisite for issuing the certificate is full participation in training.

Length: 32 academic hours

NB! Koolitust on võimalik tellida ka eesti keeles.

Continuing Education Curriculum Group: 0613 Tarkvara ja rakenduste arenduse ning analüüsi õppekavarühm

The training price also includes:

- study materials;
- a trainer's consultation on the topics learned, by e-mail after the training;
- certificate.

As an added value, we offer:

- free parking;
- lunch;
- hot drinks with cookies;
- fresh fruits.

You can participate in the training also with the Unemployment Insurance Fund training card.

See you at the training!

Day 1

- 09:15 - 09:30 ○ **Gathering**
- The training takes place at Vana-Lõuna 39/1, Tallinn, IT Training premises. You can park in the Europark car park at Veerenni 36, EP63. Parking is free by registering at the IT Training on the first floor.
- 09:30 - 11:00 ○ **1. Introduction to R and Rstudio**
- Brief overview of R and Rstudio
 - Managing projects in RStudio
 - The basic of using R
- Methods used: hands-on training
- 11:00 - 11:15 ○ **Coffee break**
- 11:15 - 12:45 ○ **2. The basics of using R**
- Data structures (vectors and data frames)
 - Functions
- Methods used: hands-on training
- 12:45 - 13:30 ○ **Lunch**
- 13:30 - 15:00 ○ **v3. Initial overview of dataset, data types**
- Initial overview of dataset
 - data types
 - getting data in and out of R (part 1)
- Methods used: hands-on training
- 15:00 - 15:15 ○ **Coffee break**
- 15:15 - 16:45 ○ **4. Additional packages in R**
- Managing additional packages in R
- Methods used: hands-on training

Day 2

- 09:15 - 09:30 ○ **Gathering**
- The training takes place at Vana-Lõuna 39/1, Tallinn, IT Training premises. You can park in the Europark car park at Veerenni 36, EP63. Parking is free by registering at the IT Training on the first floor.
- 09:30 - 11:00 ○ **1. Recap and Dates with lubridate**
- Quick recap of what we learned last time
 - Converting any bad dates to good ones with lubridate

Methods used: hands-on training

11:00 - 11:15 ○ **Coffee break**

11:15 - 12:45 ○ **2. Getting data in part 2; Filtering data**

- Reading data from various formats
- Interfaces to online databases
- Filtering data

Methods used: hands-on training

12:45 - 13:30 ○ **Lunch**

13:30 - 15:00 ○ **3. Visualizing data - Grammar of Graphics**

- Introduction to grammar of graphics

Methods used: hands-on training

15:00 - 15:15 ○ **Coffee break**

15:15 - 16:45 ○ **4. Grammar of graphics**

- Geometrics, aesthetics, grouping variables and facets

Methods used: hands-on training

Day 3

09:15 - 09:30 ○ **Gathering**

The training takes place at Vana-Lõuna 39/1, Tallinn, IT Training premises. You can park in the Europark car park at Veerenni 36, EP63. Parking is free by registering at the IT Training on the first floor.

09:30 - 11:00 ○ **1. Grammar of graphics continues**

- Additional geometrics
- positions
- scales

Methods used: hands-on training

11:00 - 11:15 ○ **Coffee break**

11:15 - 12:45 ○ **2. Grammar of graphics continues**

- Color scales, manual scales
- Legends
- themes

Methods used: hands-on training

12:45 - 13:30 ○ **Lunch**

13:30 - 15:00 ○ 3. Lists and functions

- Another data structure - list
 - Writing functions in R
 - Factor variables in R
- Methods used: hands-on training

15:00 - 15:15 ○ **Coffee break**

15:15 - 16:45 ○ 4. Introduction to dplyr – grammar of data manipulation

- Piping in R
 - Main verbs in grammar of data manipulation:
 - filter(), select(), group_by(), summarize(), mutate(), arrange()
- Methods used: hands-on training

Day 4

09:15 - 09:30 ○ Gathering

The training takes place at Vana-Lõuna 39/1, Tallinn, IT Training premises. You can park in the Europark car park at Veerenni 36, EP63. Parking is free by registering at the IT Training on the first floor.

09:30 - 11:00 ○ 1. Recap and rmarkdown – writing automatic reports in R

- Recap of grammar of graphics
 - Introduction to RMarkdown
- Methods used: hands-on training

11:00 - 11:15 ○ **Coffee break**

11:15 - 12:45 ○ 2. Grammar of data manipulation continues

- Data in long and wide format, converting between formats (tidyr)
- Methods used: hands-on training

12:45 - 13:30 ○ **Lunch**

13:30 - 15:00 ○ 3. Grammar of data manipulation continues

- Additional training on grammar of data manipulation
- Methods used: hands-on training

15:00 - 15:15 ○ **Coffee break**

15:15 - 16:45 ○ 4. Putting it all together and additional materials

- Grammar of graphics, grammar of data manipulation and rmarkdown
 - additional materials
- Methods used: hands-on training

LISAINFO

Osalemise tingimused

Registreerudes e-poe, e-kirja või telefoni teel, saadame Teile arve ja täpsema info osalemise kohta.

Üksteist päeva enne koolitust saadame Teile e-kirjaga meenutuse osalemise infoga.

Koolitusel osalemine on nimeline, kuid saate osalejat tasuta muuta kuni koolituse alguseni.

Koolituse eest tasumine toimub arvel viidatud arveldusarvele. Arve saadetakse maksja aadressile e-postiga. Arve tuleb tasuda enne koolituse algust arvel märgitud maksetähtajaks.

Kui Te ei saa mingil põhjusel osaleda, palun andke sellest kindlasti teada e-posti aadressil info@koolitus.ee või telefonil 618 1727. Kui teatate koolitusel mitteosalemisest kuni 10 tööpäeva enne algust, pakume mõnd muud samaväärset koolitust või tagastame 100% tasutud koolituse maksumusest. Mitteosalemisest vähemalt 5 tööpäeva varem teatades, tagastame 50%. Muul juhul kuulub arve tasumisele. Raha tagastame ette antud summas juhul, kui pole tehtud koolituse korraldamisega seotud kulutusi (ostetud õppematerjale jms). Koolitusele mitteilmumisel, sellest mitteteatamisel või koolituse poolelijätmisel õppetasu ei tagastata.

IT Koolitusel on õigus koolitusgrupi mitte täitumisel koolituse toimumine edasi lükata või koolitus ära jätta. Koolitusele registreerunuid teavitatakse kursuse edasi lükkumisest või ära jätmisest telefoni või e-posti teel. Koolituse ära jäämisel korraldajatest tulenevatel põhjustel makstakse õppetasu tagasi. .

IT Koolitus on Eesti Töötukassa koolituskaardi koostööpartner. Tutvuge koolituskaardi infoga [SIIN](#).

Täpsema info saamiseks võtke meiega ühendust telefonil 618 1727 või info@koolitus.ee.