

Programming in R

Programmering i R

7.5 credits

Programme course

732G33

Valid from: 2025 Spring semester

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|-----------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------|
| Determined by | Main field of study | |
| The Quality Board at the Faculty of Arts and Sciences | Programming | |
| Date determined | Course level | Progressive specialisation |
| 2012-03-16 | First cycle | G1N |
| Revised by | Disciplinary domain | |
| Chairman of the Course and Programme Syllabus Board at the Faculty of Arts and Sciences | Technology | |
| Revision date | Subject group | |
| 2023-04-04; 2024-09-30 | Informatics/Computer and Systems Sciences | |
| Offered first time | Offered for the last time | |
| Spring semester 2012 | | |
| Department | Replaced by | |
| Institutionen för datavetenskap | | |

Course offered for

- Bachelor's Programme in Statistics and Data Analysis

Entry requirements

General entry requirements for undergraduate studies
and

Social Studies, English and Mathematics corresponding to the level in Swedish upper secondary education (Samhällskunskap 1b or 1a1 and 1a2, Engelska 6, Matematik 3b/3c or Matematik C)

Intended learning outcomes

After completion of the course, the student should be able to:

- create simple programs in the R programming language
- use basic programming techniques such as loops, iterations and conditional statements
- manage to import and print data in various data structures and manipulate these

Course content

The course covers:

- basic programming using R
- uploading and printing of data
- data structures, functions and objects
- iterations, loops and conditional statements
- applications of R for statistical problems such as data management, literate programming, descriptive statistics, tests and confidence intervals
- figures and graphics in R

Teaching and working methods

The teaching consists of lectures and computer labs. In addition to this, the student is expected to engage in self-study.

Examination

The course is examined through:

- Individual written exam, graded on the scale: UV
- Written presentation of lab assignments, graded on the scale: UG

To obtain a Passing grade (G) for the course, Passing grades (G) are required for all components. To obtain a Passing with distinction grade (VG), a Passing with distinction grade (VG) is required for the individual written exam.

Detailed information about the examination can be found in the course's study guide.

If special circumstances prevail, and if it is possible with consideration of the nature of the compulsory component, the examiner may decide to replace the compulsory component with another equivalent component.

If the LiU coordinator for students with disabilities has granted a student the right to an adapted examination for a written examination in an examination hall, the student has the right to it.

If the coordinator has recommended for the student an adapted examination or alternative form of examination, the examiner may grant this if the examiner assesses that it is possible, based on consideration of the course objectives.

An examiner may also decide that an adapted examination or alternative form of examination if the examiner assessed that special circumstances prevail, and the examiner assesses that it is possible while maintaining the objectives of the course.

Students failing an exam covering either the entire course or part of the course twice are entitled to have a new examiner appointed for the reexamination.

Students who have passed an examination may not retake it in order to improve their grades.

Grades

Three-grade scale, U, G, VG

Other information

Planning and implementation of a course must take its starting point in the wording of the syllabus. The course evaluation included in each course must therefore take up the question how well the course agrees with the syllabus.

The course is conducted in such a way that there are equal opportunities with regard to sex, transgender identity or expression, ethnicity, religion or other belief, disability, sexual orientation and age.

If special circumstances prevail, the vice-chancellor may in a special decision specify the preconditions for temporary deviations from this course syllabus, and delegate the right to take such decisions.