



Interuniversity Graduate School of Psychometrics en Sociometrics
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Postdoctoral course Programming in *R*

Final registration date: 1 May 2007

Instructor(s): Professor Han Van der Maas and others, University of Amsterdam.

Dates: 19-22 June 2007

Location and how to get there

Psychology Department, University of Amsterdam, rooms to be announced.

Short description of the course

In this course students learn to work with the programming language *R*, and to write programs for advanced data-analysis, for visualization of data and for computer simulation.

R is becoming the favourite programming language in statistics because of its flexibility, its universality and because it is freely available on the web. Therefore, it made other languages obsolete. For some people, for example, *R* replaced Excell, SPSS, and C/Fortran. Apart from being freely available, it's easy to learn and platform independent (see <http://cran.r-project.org>).

Programming is an important research skill. Being able to program allows one, for instance, to investigate psychological and statistical models by simulations, to develop and implement new statistical techniques, and to manipulate and analyze data in various ways. In this short course students learn the basics of *R* and to work with the numerous statistical libraries available for *R*.

Target group

This course is meant for PhD students, postdocs and others that want to use *R*, have some basic knowledge of programming, and knowledge of data-analysis and statistical analysis. This course is only a short introduction. Students will be asked to install *R* and read a short manual before the course starts.

After finishing the course, students will be asked to study some material provided by the course instructor, and make a take home exam (workload is estimated at two weeks). Students who return the test, will succeed for the course and receive a certificate (3 ECTS).

Course format: lectures, practical session, and homework

Language: English

Prerequisites

Basic programming knowledge. If not, students may read Appleman, D. *How computer programming works*. ISBN: 1-893115-23-2, or a similar introduction. Also basic knowledge of statistics and data-analysis is required

Literature (books, readers), price

R manual (to be announced)

Minimum/maximum number of participants: 8/25

Certificate: yes

Number of European Credit Points: 3

Fees

IOPS PhD students	Free
PhD students appointed at a university	€ 400 and € 25 registration fees; additional costs for course materials
IOPS staff members, and IOPS alumni	€ 400 and € 25 registration fees; additional costs for course mate
Other participants	€ 1200 and € 25 registration fees; additional costs for course materials

Information and registration

Lidy van Everdingen (IOPS course administration)

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Cancellation

No refund is made for cancellations after the final registration date of the course.