

# Programming in R for data analyses

*Prof. Dr. Stephan Frickenhaus, AWI*

<b>Date &amp; Time:</b>	Sept 28 – 30, 2016	9:00-16:00
<b>Location:</b>	AWI Potsdam, A43 seminar room	
<b>Language:</b>	English	
<b>POLMAR credit points:</b>	3	
<b>Registration:</b>	<a href="mailto:info.polmar@awi.de">info.polmar@awi.de</a>	

## Course content:

The course will lay conceptual and technical basics to the needs for R practice, e.g., in the statistics courses offered by Dieter Wolf-Gladrow within POLMAR or your own application field of data analyses. I will focus on data input and output methods, processing and connecting data from many files, data reformatting for different applications, data transformation and usage of R packages and their structured data objects; in particular, accessing analyses results from objects is trained. Additional techniques are trained, such as loop-programming, code-optimization by “apply” functions, data organisation and processing in lists. Many coding suggestions are given to improve readability and reusability of your R programs.

**Day 1:** Effectively organising R projects, theory of R data structures, addressing data in large tables, Graphical data exploration, filtering subsets

**Day 2:** Loop and list programming, performance issues, putting many tables together

**Day 3:** Practical examples from your projects; **bring your own data / approaches!**

**Please note:** *This course is also open for former R-course users and post-docs with demand for more programming skills!*

## Target group:

Data analysts, requiring programming basics and knowledge of advanced features to usage of R packages and data objects

## More information:

You need a notebook computer, installation of R (free of charge from [r-project.org](http://r-project.org)) and RStudio (free of charge from [rstudio.com](http://rstudio.com)). On day three there is time to discuss your data from existing/running projects.

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*Our courses are generally free of charge for all participants. However, they do have a price and can cost as much as 150 € per day per student. Please take this into account when cancelling your place on the last minute.*

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