



Data Science Focused R Programming - Beginner Short Course May 1st and 2nd, 2023

Join us for a virtual two-day course focusing on hands-on R programming for reproducible data analysis.

Learn how to:

- Get up and running with R using the Rstudio
- Understand R data types and functions
- Use data frame manipulation to wrangle data
- Visualize and plot with ggplot2 and plotly
- Put it all together by creating a reproducible data analysis report

The registration fee for this course is \$300 for University of California students, postdocs, staff and faculty, \$400 for other academics and \$500 for industry/other participants.

Register Here: <https://forms.gle/cSsYhNSft9GDR1tM9>

Prerequisites

See detailed installation instructions: <https://github.com/CreativeDataSolutions/CDS.courses>

Required tools:

1. R programming language 4.2.1 or higher: <https://cran.r-project.org/>
2. R Studio Desktop: <https://www.rstudio.com/products/rstudio/>

This course will be taught virtually (Zoom).

Instructor Bio



Dr. Dmitry Grapov (Founder, [Creative Data Solutions](#)) has over ten years of industry experience in a variety of biotech settings, including agricultural/plant biotech, healthcare and synthetic biology. His expertise broadly encompasses bioinformatics, data science and machine learning with specific research interests in 'omics data integration, multivariate data analysis and visualization, network analysis and machine learning. Dr. Grapov received a BS in Biology and Chemistry from the University of Utah and a PhD in Agricultural and Environmental Chemistry with a Designated Emphasis in Biotechnology (DEB) from UC Davis. In addition to running CDS and teaching courses, he serves as the Senior Director, Data Science at Amyris ([Dr. Dmitry Grapov LinkedIn Profile](#)).



UC DAVIS
Biotechnology Program

R Programming Course Schedule

Monday, May 1st

9:00-4:00	Description
9:00-9:30	<i>Overview and introduction</i>
9:30-10:00	<i>Getting oriented with Rstudio</i>
10:00-10:30	<i>R data types and functions</i>
10:30-10:45	<i>Break - Instructor Q&A</i>
10:45-12:00	<i>Tidy data frame manipulations</i>
12:00-1:00	<i>Lunch Break</i>
1:00-2:30	<i>Hands-on data wrangling</i>
2:30-2:45	<i>Break - Instructor Q&A</i>
2:45-4:00	<i>Introduction to ggplot2</i>

Tuesday, May 2nd

9:00-4:00	Description
9:00-9:30	Path to a reproducible report
9:30-10:30	Multivariate data analysis
10:30-10:45	Break - Instructor Q&A
10:45-12:00	Visualize multivariate analysis results using plotly
12:00-1:00	Lunch Break
1:00-2:30	Dreate reproducible data analysis report using Quarto