

## **Linear regression methods: recalls simple and multiple regression**

§ Name of instructor

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§ Short description

Simple and multiple linear regression models. Understand the context of simple linear regression. Understand the assumptions that must be met for a simple linear regression model to be valid. How multiple predictors can be included in a regression model. Strategies for constructing regression models. Distinguishing between outliers and influential data points and how to handle them. Handling problems typically encountered in regression contexts.

§ Schedule

- Descriptive Data Analysis
- Review of Multiple Linear Regression Models
- Simple Linear Regression
- Multiple Linear Regression: Moderation Analysis
- Multiple Linear Regression: Stepwise Model Selection
- Regression Model Diagnostics: Checking Assumption

§ Introductory background:

Hoffmann J.P. (2021). Linear Regression Models: Applications in R. Taylor & Francis Ltd

§ Facilities Required

- Software: R and RStudio, open source
- Course Material. All course materials, including the data and R scripts for the examples, will be made available for course participants.