# Modelling regression dependencies

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The mini-course "Modelling Regression Dependencies" will focus on the statistical modeling and analysis of regression relationships between variables. The main concern here are methodologies used to model and understand the dependencies between a response variable and one or more predictor variables. The first lecture will cover simple linear regression and multiple linear regression, assumptions underlying these models and techniques for assessing model adequacy and goodness of fit. In the consecutive lecture we will discuss various extensions of the multiple linear model, such as a non-linear parametric regression and argue that linear modelling has much broader range of applicability than it seems at the first glance. The last lecture will cover the scenario when the response variable takes one of several nominal values and logistic modelling, also addressing the important question of variable selection in both linear and logistic models.