

Course Descriptions Bachelor 2020-2021

Course Title Introduction to Software in Econometrics, Operations Research and Actuarial Science

Course Code EBS2043

ECTS Credits 4,0

Assessment Whole/Half Grades

Period	Start	End	Mon	Tue	Wed	Thu	Fri
3	11-1-2021	22-1-2021	X	X		X	

Level Advanced

Coordinator Michael Eichler For more information: m.eichler@maastrichtuniversity.nl

Language of instruction English

Goals Development of software skills for Econometrics and Operations Research methods.

Description In this skills course students will acquire the necessary skills in order to use computer software to solve problems in Econometrics & Operations Research. These skills are needed for many Bachelor thesis topics. Students can choose to work on either the Econometrics or the Operations Research part.

Econometrics part:

Students will be trained to use the software R. Applications using the software R will be based on Bayesian inference of a set of standard econometric models. Special attention will be given to the development of computational algorithms such as Markov chain Monte Carlo.

Operations Research part:

Students will acquire the skills to model optimization problems as (integer) linear programs and to solve such programs using the software package CPLEX as a Java library. Being able to model business and economics problems as linear programs and being able to solve them efficiently is essential in business and research.

Literature

Lecture notes.

Prerequisites

Optimisation (EBC2105), Operations Research (EBC2106), Econometric Methods 1 (EBC2111).

Teaching methods

Lecture / Assignment / Papers / Groupwork

Assessment methods

Final Paper

Evaluation in previous academic year

For the complete evaluation of this course please click <http://iwio-sbe.maastrichtuniversity.nl/rapporten.asp?referrer=codeUM>

This course belongs to the following programme / specialisation

Bachelor Econometrics and Operations Research Year 3 Compulsory Skill(s)