Course Descriptions Bachelor 2020-2021

Course Title	Statistics
Course Code	EBC1044
ECTS Credits	6,5
Assessment	Whole/Half Grades

Period	Period	Start	End	Mon	Tue	Wed	Thu	Fri
	2	26-10-2020	11-12-2020	X		X		

Level	no level
Coordinator	Dirk Tempelaar For more information:d.tempelaar@maastrichtuniversity.nl
Language of instruction	English
Goals	* Understanding of main statistical concepts and methods that shape descriptive statistics, probability models, sampling and inferential statistics. * Apply main statistical concepts and methods that shape descriptive statistics, probability models, sampling and inferential statistics. * Being able to reason what statistical concepts and methods match business analytics cases. * Judging about the correctness of applying statistical concepts and methods in business analytics cases. * Reflect on the choice for methods and their application in business analytics cases.
Description	PLEASE NOTE THAT THE INFORMATION ABOUT THE TEACHING AND ASSESSMENT METHOD(S) USED IN THIS COURSE IS WITH RESERVATION. THE INFORMATION PROVIDED HERE IS BASED ON THE COURSE SETUP PRIOR TO THE CORONAVIRUS CRISIS. AS A CONSEQUENCE OF THE CRISIS, COURSE COORDINATORS MAY BE FORCED TO CHANGE THE TEACHING AND ASSESSMENT METHODS USED. THE MOST UP-TO-DATE INFORMATION ABOUT THE TEACHING/ASSESSMENT METHOD(S) WILL BE AVAILABLE IN THE COURSE SYLLABUS. Statistics focuses on the collection and analysis of numerical data, typically in large amounts. With the ultimate aim of doing inference: formulate conclusions and make decisions that relate to an unknown population, based on data collected in a sample. We call this type of inferential reasoning also induction, to distinguish it from the type of reasoning applied in mathematics: deduction. The main aim of this course is to introduce you to the main tools of inferential statistics, like hypothesis testing, confidence intervals, regression. However, we cannot start right away with these topics since they require a foundation. Descriptive statistics, how to describe the characteristics of data with graphs and numerical summaries, probability theory and sampling theory are buildings blocks to be mastered before starting to learn inference. Next to statistical analysis, this course aims to introduce you to statistical computing. Both R, a software environment for statistical computing and graphics and the spreadsheet program Excel are instrumental in reaching that second aim. Formative assessment: Feedback, and three quizzes Summative assessment: Final exam Instructional approach: Problem Based Learning in a flipping the classroom context
Literature	
Prerequisites	
Keywords	
Teaching methods	PBL / Lecture / Assignment
Assessment methods	Attendance / Written Exam / Assignment
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 Business Analytics Year 1 Compulsory Course(s)