

Course Descriptions Exchange 2022-2023

Course Title Sampling Design
 Course Code EBS2037
 ECTS Credits 4,0
 Assessment Whole/Half Grades

| Period | Start | End | Mon | Tue | Wed | Thu | Fri |
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| 6 | 26-6-2023 | 7-7-2023 | C | | | | |

Level Introductory

Coordinator Jan van den Brakel For more information: j.vandenbrakel@maastrichtuniversity.nl

Language of instruction English

Goals
 -Understand why designs like stratified sampling are often more informative than simple random sampling.
 -Learn to recognize the opportunities to apply more advanced sampling designs in practical situations.
 -Learn to implement different sampling designs, and process their outcomes.

Description
 PLEASE NOTE THAT THE INFORMATION ABOUT THE TEACHING AND ASSESSMENT METHOD(S) USED IN THIS COURSE IS WITH RESERVATION. A RE-EMERGENCE OF THE CORONAVIRUS AND NEW COUNTERMEASURES BY THE DUTCH GOVERNMENT MIGHT FORCE COORDINATORS 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.

Marketing researchers often draw samples in order to infer the opinions of a client population. This is very practical, but since only a small part of the population is observed, the results are subject to inaccuracy. Of course, we want the sample results to be as close as possible to the true values. The most straightforward way to draw a sample is simple random sampling, where every population member has the same chance of being sampled. However, sometimes more complex sampling designs (e.g. stratified samples) are much better. "Better" in the sense of value-for-money: they allow us to make more accurate statements at the same cost, or to reach a desired level of accuracy at lower cost, than simple random sampling. This course focuses on the statistical aspects of various sampling designs. The objective is to construct appropriate sampling designs in real life situations. During the first half of the course, some theory is introduced, and tested by small numerical assignments. During the second half, a sampling design is developed for a practical situation and the actual sampling is conducted. The samples are drawn from a given data set which serves as population: the course does not involve the construction of a questionnaire and the actual gathering of data.

Literature
 A translated and adapted version of Theorie en Praktijk van het Steekproefonderzoek by J.G. Bethlehem, 1st ed., CBS, Voorburg (to be made available through Canvas).

Prerequisites
 Basic principles from inferential statistics as discussed in typical first-year Quantitative Methods courses such as QM1 (code EBC1005/1006/1007) and QM2 (code EBC1033/1034/1035): basic probability theory, population versus sample, sampling distribution, point estimation, confidence intervals, type I error, regression analysis.
 An advanced level of English.

Teaching methods
 PBL / Assignment / Groupwork

Assessment methods
 Attendance / Participation

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

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|---|--------------------------|
| Bachelor Economics and Business Economics - Economics | Year 2 Elective Skill(s) |
| Bachelor Economics and Business Economics - Economics and Management of Information | Year 2 Elective Skill(s) |
| Bachelor Economics and Business Economics - International Business Economics | Year 2 Elective Skill(s) |
| Bachelor Fiscal Economics | Year 2 Elective Skill(s) |
| Bachelor International Business | Year 2 Elective Skill(s) |
| SBE Exchange Bachelor | Bachelor Exchange Skills |
| SBE Exchange Master | Bachelor Exchange Skills |
| SBE Non Degree Courses | Bachelor Skills |