MANNHEIM DATA SCIENCE CERTIFICATE: INTRODUCTION TO SURVEY AND DATA SCIENCE

This certificate is your entry point into the world of survey and data science and is your first step to properly qualify for positions such as Data Scientist, Research Scientist, Decision Scientist, Survey Methodologist, or User Experience Researcher. You will develop and reinforce proper statistical intuition and get to know different types of data and how to approach them. You will learn concepts of collecting & analyzing data to gain insight, and you will be trained to evaluate the quality of data.

KEY FACTS

STRUCTURE
Asynchronous learning through video lectures combined with weekly 1-hour live online meetings

LANGUAGE
English

CREDITS
Certificate of Completion

CERTIFICATE DURATION
2 courses
12 weeks per course

APPLICATION REQUIREMENTS
- An academic degree
- Fluency in English

PARTICIPANTS
Limited to 20

TIME COMMITMENT
Part-Time, full day

CERTIFICATE DESCRIPTION

In our digital age, we are amassing large amounts of data. The demand for well-trained experts in data collection and data analysis is rising, because not only private-sector companies but also governments and non-profit organizations increasingly use data from surveys and other sources for monitoring and decision-making. The fields of survey methodology and data science draw on theories and practices developed in several academic disciplines – mathematics, statistics, psychology, sociology, computer science, and economics. To become an accomplished professional in these fields requires a mastery of research literatures as well as experience in designing, conducting, and analyzing surveys and data from other sources, such as administrative records, social media, or transactions. The participants in this certificate develop and reinforce proper statistical intuition and learn key terminology and concepts of collecting and analyzing data from surveys and other data sources to gain insights and to test hypotheses about the nature of human and social behavior and interaction. The courses will also provide a framework that will allow the student to evaluate the influence of different error sources on the quality of data.

KEY BENEFITS

- Excellence: Theoretically based and practice-oriented learning from a faculty from world's top ranked universities, statistical agencies and businesses
- Flexibility: Join courses online from anywhere in the world, at your own pace.
- Online learning: Asynchronous learning experience (pre-recorded lectures, readings) and synchronous learning experience (virtual classroom, weekly live discussions led by the instructor)
- Participant profile: Participants benefit from a diverse group of international peers coming from various industries and with different occupational profile

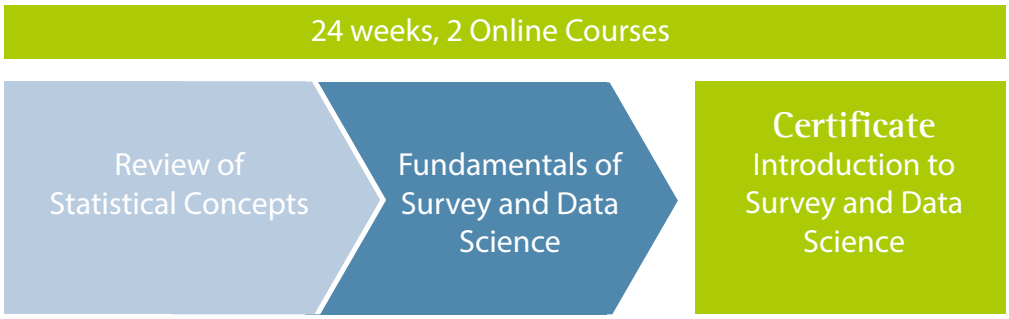
www.mannheim-business-school.com/dsc/
pfeifer@mannheim-business-school.com
+49 (0)621 181 3427

MANNHEIM BUSINESS SCHOOL

BY COMPLETION OF THE CERTIFICATE YOU WILL...

- understand the concepts of sample and population and know how to apply statistical methods appropriately.
- be able to apply basic probability.
- know basic probability distributions and how to apply them.
- perform hypothesis tests and construct confidence intervals.
- understand regression analysis, including multiple regression and logistic regression.
- be able to apply the key terminology used by survey methodologists and data scientists.
- be able to assess the quality of data from different sources based on a data quality framework.
- be able to select an appropriate data source to answer different types of research questions.
- understand the influence of coverage, sampling, and non-response on data quality and know how to deal with deficiencies of the data.
- have a clear understanding of the steps involved in data preparation, data processing, data analysis, and data visualization.
- be able to comply with ethical standards in survey research and data science.

COURSES



SAMPLE SCHEDULE

	Review of Statistical Concepts	Fundamentals of Survey and Data Science
Mandatory weekly online meeting	Wednesdays, 1 PM EDT/7 PM CEST, June 2 - August 5, 2021	Tuesdays, 8 AM ET/2 PM CET, September 6 - November 23, 2021
Final Exam	August 15, 2021	November 30, 2021

CASE STUDIES & EXAMS

There will be a mixture of weekly online quizzes and assignments. Additionally, the courses each conclude with a final exam.

To see all courses in the upcoming term click here.

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