IPSDS
INTERNATIONAL PROGRAM IN SURVEY & DATA SCIENCE
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International Faculty from Partner Universities

UNIVERSITY OF MANNHEIM  UNIVERSITY OF MARYLAND  UNIVERSITY OF MICHIGAN  MANCHESTER 1824  Utrecht University  LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN  Australian National University  UMASS BOSTON  PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE
International Faculty from the Industry
Learning objectives / Modules

- Data Output/Access
- Data Analysis
- Data Curation/Storage
- Data Generating Process
- Research Question

- Learn how to communicate results and distribute and store your data
- Learn a variety of analysis methods suited for different data types
- Learn how to curate and manage data
- Understand how to collect data yourself, and how data are generated through administrative and other processes.
- Learn how to formulate your research goal and which data are best suited to achieve it.
Research Question
Fundamentals of Survey and Data Science

Data Generating Process
Data Collection Methods
Experimental Design For Surveys
Questionnaire Design
Sampling Theory
Usability Testing for Survey Research
Web Scraping and API
Web Survey Methodology

Data Curation/Storage
Introduction to Python and SQL
Introduction to Real World Data Management
Introduction to Record Linkage with Big Data Applications

Data Analysis
Analysis of Complex Survey Data
Big Data and Machine Learning
Computer-Based Content Analysis I (Theory) & II (Practical Project)
Generalized Linear Models
Introduction to Small Area Estimation
Item Nonresponse and Imputation
Measurement Error Models
Multiple Imputation – Why and How
Practical Tools for Sampling Part I
Project Consulting Course
Usability Testing for Survey Research

Data Output/Access
Data Confidentiality and Statistical Disclosure Control
Introduction to Data Visualization
Privacy Law
Flexible & engaging online learning environment

• Online learning environment accessible from anywhere in the world (taught in English)
• Small virtual classroom with a mix of synchronous & asynchronous learning
  ➢ Pre-recorded lectures split into small video units
  ➢ Required readings and (bi)weekly assignments
  ➢ Discussion forums
  ➢ Weekly online meetings
• On-site networking activities with fellow students from five continents
• Wide variety of options: from individual courses or course sequences to a modular program

8-10h per week
Corporate Partnership Possibilities
Join individual courses that start in March 2019

Research Question
Fundamentals in Survey & Data Science

Data Generating Process
Questionnaire Design
Web Scraping & API

Data Analysis
Big Data & Machine Learning
Generalized Linear Models
Measurement Error Models
Practical Tools for Sampling Part I

Data Output/Access
Data Confidentiality & Statistical Disclosure Control
Introduction to Data Visualization
2-Day event: May 31st /June 1st

- Yearly networking event
- Day1: create a community within IPSDS students
- Day2: open to audience interested in data science.

How can corporate partners contribute?

- Present a case study
- Engage as speaker
- Host a workshop/tutorial
1-Day event: March 25th
• Conference following Stanford’s tradition
• Inspire and educate data scientists worldwide
• Support women in the field

How can corporate partners contribute?
• Introduce your career, research and specific projects in the Data Science field
• Take part in career panel & discussion groups
3-Day event: May 3rd - 5th

• Data analysis competition where teams of up to five students attack a large, complex, and surprise dataset over a weekend

How can corporate partners contribute?

• Sponsor the event
• Meet talents @ the Career Fair (May 4th)
Thank you for your attention!
survey-data-science.net