



# 2022 ISI Training Course

## Data Science & Predictive Analytics (DSPA)

Distance-based virtual Spring 2022 ISI Training and Education Short Course  
March 7<sup>th</sup>, 8<sup>th</sup>, & 21<sup>st</sup>, 2022, 16:00-19:00, Central European Time, (UTC+1)

### Course Overview

This course will provide an active learning environment to build competency in the following areas: Algorithms and Applications, Data Management, and Analysis Methods. Specifically, participants will get end-to-end R-protocols, gain ML/AI algorithm knowledge, explore data validation, wrangling, and visualization, experiment with statistical inference and model-free tools.

### Logistics

Three daily sessions (3-hours each). Enrollment capped at 30 participants. See website for registration, prerequisites, coverage & program. ISI courses require a nominal registration fee (€120), 2-4 need-based waivers may be awarded

<https://myumi.ch/e6zyw>

<https://www.isi-web.org/courses/node-1262>

Participants will gain skills and acquire a tool-chest of methods, software tools, and protocols that can be applied to a broad spectrum of Big Data problems. Will cover mathematical algorithms, statistical computing methods, software tools, health analytics, and discuss a number of driving motivational problems. One example of a comprehensive end-to-end protocol that will be demonstrated involves predicting brain cancer and estimating tumor image mask from observed MRI data. Each participant will be supported to complete and present a Capstone Project on Day 3.

Statistics Online Computational Resource  
International Statistical Institute (ISI)

**Instructor:**

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**URL:**

[https://wiki.socr.umich.edu/index.php/SOCR\\_News\\_ISI\\_DSPA\\_Training\\_2022](https://wiki.socr.umich.edu/index.php/SOCR_News_ISI_DSPA_Training_2022)