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UNIVERSITÉ DE FRIBOURG
UNIVERSITÄT FREIBURG

Faculty of Management, Economics and Social Sciences
Department of Economics
Chair of Applied Econometrics - Evaluation of Public Policies

WINTER SCHOOL 2025

IN DATA ANALYTICS AND MACHINE LEARNING

3 – 14 February 2025
Fribourg, Switzerland

UNIVERSITÉ DE FREIBOURG
FACULTÉ DE SCIENCES ECONOMIQUES ET SOCIALES ET DU MANAGEMENT

UNIVERSITÄT FREIBURG
WIRTSCHAFTS- UND SOZIALWISSENSCHAFTLICHE FAKULTÄT
DEPARTEMENT FÜR VOLKSWIRTSCHAFTSLEHRE

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Many firms and organizations have recognized the value of analyzing data based on quantitative tools like regression, machine learning, and deep learning

- for forecasting specific outcomes such as sales or prices: predictive analysis;
- for evaluating the causal impact of specific actions such as offering discounts or running marketing campaigns: causal analysis.

This permits improving the quality of decision-making and thus increasing efficiency and competitiveness.

The "Fribourg Winter School in Data Analytics and Machine Learning" provides training in state-of-the-art quantitative tools for predictive and causal analysis. The winter school takes place in hybrid form, implying that participants can attend courses either in class (face-to-face) or online. The one- to three-days-courses cover both introductory and more advanced topics, using the open source software packages "Python", "R", "Julia" and "Knime". "Python", "Julia" and "R" are among the most popular programming languages in data science and statistics, while "Knime" is a user-friendly, flow-chart based graphical interface that does not require any programming skills. Among the topics covered in the various courses are

- regression techniques for multivariate statistical analysis;
- machine and deep learning algorithms like lasso, decision trees, random forests, and neural nets;
- text analysis to extract and statistically analyze text information from websites, like sentiments about products.

The working language will be English.

Please note that the sessions will not be recorded.

Participants are free to attend all courses or to select a subset of courses offered in the winter school. The fees for the "Fribourg Winter School in Data Analytics and Machine Learning" are:

Courses	BA/MA/PhD students at the University of Fribourg	BA/MA/PhD students or employes at any other university / research institution	Private companies or public sector employees
Block 1: Knime course (3 Feb)	CHF 90	CHF 220	CHF 330
Block 2: R courses (4 - 6 Feb)	CHF 90	CHF 550	CHF 880
Block 3: Julia course (7 Feb)	CHF 90	CHF 220	CHF 330
Block 4: Python basic (10 - 11 Feb)	CHF 90	CHF 410	CHF 610
Block 5: Python advanced (12 - 14 Feb)	CHF 90	CHF 550	CHF 880
Block 4 + 5: (10 - 14 Feb)	CHF 90	CHF 670	CHF 1030
All courses: (3 - 14 Feb)	CHF 90	CHF 1100	CHF 1720

The fee includes tuition, course materials, access to the faculty's library and internet access.

Online registration deadline: **Jan 27th 2025**

For more information, visit: https://www.unifr.ch/appecon/en/winterschool/

or contact: **karin.loetscher@unifr.ch**