

- Faculté des sciences économiques
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Quantitative Methods in Management (5EN2024)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en développement international des affaires	Cours: 4 ph	Voir ci-dessous	6
Master of Science en innovation	Cours: 4 ph	Voir ci-dessous	6

ph=période hebdomadaire, pg=période globale, j=jour, dj=demi-jour, h=heure, min=minute

Période d'enseignement:

- Semestre Automne

Equipe enseignante

Chargé d'enseignement : Dr. Michael Puntiroli Institute of Management, Rue A.-L. Breguet 2, CH-2000 NEUCHATEL email: michael.puntiroli@unine.ch Phone : +41 (0)32 718 19 48 Office R.167: available by appointment

Contenu

The course will cover the following topics:

- Why Data is valuable
- Experimental designs and research questions
- Data Cleaning and Robust Statistics
- Correlations, t-tests and ANOVAs
- Data-driven techniques such as Factor Analysis and Clustering
- Statistical matching techniques to create a control group
- From Simple regression models to more complex models with Moderation and/or Mediation.

Forme de l'évaluation

Continuous evaluation through the handing-in of exercises based on the topics treated in class (20%).
Project based evaluation based on a semester-long ongoing group project (30%).
Two-hour written final exam during the winter session (50%).

The exam will be a closed-book exam. Neither documents nor connected devices are permitted during the exams (i.e. no connection to internet). A laptop will be necessary for the exam, as well as a software program to run statistical analyses, such as R, Stata or SPSS. In case of violation of these rules, the students are in a situation of fraud and the unauthorized will be removed. The exam could be deemed as failed.

Modalités de rattrapage

Retake (written 2h) will be done during the exam retake session. In the case of a first attempt (i.e., justified absence from the exam at the first session), the course activities will be counted in the calculation of the final grade.
In case of a second attempt or unjustified absence at the first attempt, the grade will be 100% on the written retake exam.

The exam will be a closed-book exam. Neither documents nor connected devices are permitted during the exams (i.e. no connection to internet). A laptop will be necessary for the exam, as well as a software program to run statistical analyses, such as R, Stata or SPSS. In case of violation of these rules, the students are in a situation of fraud and the unauthorized will be removed. The exam could be deemed as failed.

Documentation

Articles, data and reports provided by the professor in class.

Pré-requis

Basic statistics and numeracy

Objectifs d'apprentissage

Au terme de la formation l'étudiant-e doit être capable de :

- Apply methods discussed in class to real life managerial issues
- Solve managerial issues through use of data
- Interpret findings from quantitative data appropriately

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- Choose among different methodological options

Compétences transférables

- Analyse a situation or problem by breaking it down into variables
- Examine data
- Interpret data
- Justify a chosen method or course of action