- Faculté des sciences économiques
- www.unine.ch/seco

Data Management (5MI2017)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en développement international des affaires	**Cours: 4 ph**	**Voir ci-dessous**	6
Master en économie appliquée	**Cours: 4 ph**	**Voir ci-dessous**	6
Master en finance	**Cours: 4 ph**	**Voir ci-dessous**	6
Master en systèmes d'information	**Cours: 4 ph**	**Voir ci-dessous**	6
Master in General Management	**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

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Contenu

The course will present advanced notions of Extracting, Transforming and Loading (ETL) of data from various sources including:
- databases (sqlite, mysql, postgresql, etc)
- tabular text and document files (csv, excel)
- structured data sources (json, html, xml, etc)
- webscrapping (html, json, API)
It also presents how to
- automate of the ETL process, with logging and reporting
- keep data up-to-date, various updating techniques (delta, or full snapshot)
- keep data history
- annotate data (add time/calendar annotations, etc)
- make data available (database, csv, excel files with linked data).

Forme de l'évaluation

- 2-hour written exam during the semester (60%) and project/exercises (40%)
- Catch-up exam: 2-hour written exam during the autumn session(100%)

- Allowed documents during exams: course slides with annotations.
- Connected devices are not permitted during the exams.In case of violation of this rule, the students are in a situation of fraud and the unauthorised items will be removed. The exam could be deemed as failed.

Documentation

Course documentation on moodle

Pré-requis

- Faculté des sciences économiques
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Database knowledge and some knowledge in Python programming language are recommended, however not mandatory.

Forme de l'enseignement

4h Interactive course with exercises and projects

Objectifs d'apprentissage

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

- Identify necessary data from various data sources
- Design an algorithm to extract the data from different data sources
- Test the results of ETL scripts
- Communicate with team members
- Develop scripts to extract and manipulate data from various sources
- Explore the results of an ETL project
- Integrate different scripts in a projectw

Compétences transférables

- Manage a project
- Develop hands-on, pro forma modelling skills using Excel
- Design projects
- Apply knowledge to new situations