- 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 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 in session (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

Database knowledge and some knowledge in Python programming language are recommended, however not mandatory.

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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
- Explore the results of an ETL project
- Develop scripts to extract and manipulate data from various sources
- Test the results of ETL scripts
- Communicate with team members
- 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