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Data Warehousing (5MI2002)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en économie appliquée	**Cours: 4 ph**	**Voir ci-dessous**	6
Master en statistique	**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

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

Période d'enseignement:

- Semestre Printemps

Equipe enseignante

Iulian Ciorascu
Scientific collaborator
Information Management Institute,
A.L.Breguet 2, CH-2000 Neuchâtel,
iulian.ciorascu@unine.ch

Alessio de Santo
Teaching assistant
Institut du management de l'information
A.L.Breguet 2, CH-2000 NEUCHATEL
+41 32 718 1370
alessio.desanto@unine.ch

Contenu

The course begins by describing the basic notions, like the objectives of Business Intelligence and the data warehouse, and also how they fit into the general Corporate Information Factory architecture. It explains why relational design techniques is chosen to model the data warehouse. A discussion about the impact of the relational modelling over the final delivery of data marts is presented.
The analysis and design issues are presented: life cycle, modelling of data warehousing and data marts (star and snowflake schema), cubes, fact tables and dimensional tables, aggregation, etc.
Special attention is given to the inter-communication between the business intelligence agents and the data warehousing development with interviewing examples.

Forme de l'évaluation

2-hour written exam during (at the end of) the semester (60%) and project (40%)

Catch-up exam: 2-hour written exam during the autumn session (100%)

Documentation accepted. No connected devices are permitted during the exams.
In case of violation of this rule, the students are in a situation of fraud and the unauthorized items will be removed. The exam could be deemed as failed.

Documentation

R Imhoff, Claudia et al., Mastering Data Warehouse Design: Relational and Dimensional Techniques, J. Wiley, 2003, ISBN: 0471324213 R Inmon, William H. Building the Data Warehouse 4th ed., John Wiley & Sons Inc., 2005, ISBN: 0764599445

Pré-requis

none

Objectifs d'apprentissage

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

- Identify the entities needed when given a business question

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- Develop a simple data warehouse and the corresponding datamarts
- Modify the business data model into a data warehouse data model
- Enumerate the possible subject areas when given a description of data
- Justify design choices for data warehouse development
- Choose the necessary entities and attributes to be carried out in a data warehouse
- Design the business data model
- Use a datamart to answer business questions

Compétences transférables

- Teamwork
- Apply knowledge to new situations
- Design projects
- Manage priorities