

Information Technologies Field		Databases & Information Technologies	Total of teaching hours : 92 hrs		
IN I3.5	3 ECTS credits		Course	Supervised work	Lab work
			24 hrs		24 hrs
		4 hrs evaluation - 8 hrs individual work 32 hrs workshop project			

Objectives

- Learn about Management and Process oriented software tools.
- Be able to model an industrial or management oriented database application.
- Learn how to implement it using a database management system.
- Get to know the main basic commands of the language SQL.
- Design and implement a website based on a database with a few tables.

(taxonomic level : application and analysis)

Prerequisites and links to other modules

Algorithm, modelling, programming, databases

Relational databases	<ul style="list-style-type: none"> ○ Systemic approach of a company, and Integration of databases within the Information System ○ Conceptualisation of a database using the Entity-Association, conceptual, relational and physical models. (data and flows) ○ Use of SQL language in the building and querying of the database ○ The security of databases (transactions, logging, backup)
Web technologies	<ul style="list-style-type: none"> ○ Concept of client server ○ Develop an interface using web standards (html, css) ○ Animate an interface (javascript) ○ Use a server language to manage a database from the client's interface (php, mysql)
Information system theory	<ul style="list-style-type: none"> ○ Information system architecture ○ Organisation of information flows in a company ○ The information system servicing the corporate strategy

Pedagogical approaches

Courses, supervised work and Lab work

Assessment methods

Evaluation and validation of a mini project in Lab work

Bibliography

- M. Clouse. Algèbre relationnelle. Paris : éditions ENI, 2008
 J.L. Baptise. Merise. Paris : éditions ENI, 2000
 O. Heurte. PHP and Mysql. Paris : éditions ENI, 2005
 S. Bordage. Conduite de projet Web. Paris : Eyrolles, 2003
 L. Van Lancker. CSS et DHTML. Paris : éditions ENI, 2004