



Course Syllabus

Course Code	Course Title	ECTS Credits
MBAN-739	Business Intelligence	7.5
Prerequisites	Department	Semester
None	School of Business	Fall, Spring, Summer
Type of Course	Field	Language of Instruction
Elective	MIS	English
Level of Course	Lecturer(s)	Year of Study
2 nd Cycle	Dr. Angeliki Kokkinaki	1 st or 2 nd
Mode of Delivery	Work Placement	Corequisites
Face to Face	N/A	None

Course Objectives:

The main objectives of the course are to:

- Establish the fundamental concepts necessary for the design, implementation, and delivery of business intelligence
- Examine the database structures that serve as the sources of business intelligence
- Acquire knowledge on multi-dimensional modeling, data warehousing, data mart structures, online analytical processing structures, ETL processes, cube concepts and definitions, multi-dimensional expression language queries and reporting
- Learn about the components of a data warehouse
- Identify different forms of business intelligence that can be gleaned from a data warehouse and how that intelligence can be applied towards business decision making
- Develop dimensional models from which key data for critical decision making can be extracted
- Sketch out the process for extracting data from disparate databases and data sources, and then transforming the data for effective integration into a data warehouse
- Load extracted and transformed data into the data warehouse Demonstrate through best industry practices how a data warehouse combined with good business intelligence may contribute to business efficiency and effectiveness.

Learning Outcomes:

After completion of the course students are expected to be able to:

1. Implement the key elements of successful business intelligence (BI) program.
2. Apply business intelligence meta-model.
3. Extract and transform data from an operational database to a data warehouse.
4. Exploit business analytics and performance measurement tools.
5. Integrate business intelligence into daily business decisions.
6. Improve the business decision making process in an organization.

Course Content:

1. Business Intelligence Fundamentals
2. Basic Concepts and Architecture of OLTP Systems:
3. Data Pre-Processing:
4. Data Warehousing and OLAP
5. Association, Correlation and Pattern Analysis
6. Classification
7. Cluster Analysis
8. Visual Data Mining.

Learning Activities and Teaching Methods:

Teaching method consists of lectures, supervised lab exercises, presentation of relevant material, practical exercises (individual or team work), assignments, and coursework.

Assessment Methods:

Project, Midterm Exam, and Final Exam

Required Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
Decision Support and Business Intelligence Systems	Efraim Turban, Ramesh Sharda, Dursun Delen	Pearson	2011	978-0-13-245323-3