



## Course Syllabus

<b>Course Code</b>	<b>Course Title</b>	<b>ECTS Credits</b>
MBAN-739DE	Business Intelligence	7.5
<b>Prerequisites</b>	<b>Department</b>	<b>Semester</b>
None	School of Business	Fall, Spring, Summer
<b>Type of Course</b>	<b>Field</b>	<b>Language of Instruction</b>
Elective	MIS	English
<b>Level of Course</b>	<b>Lecturer(s)</b>	<b>Year of Study</b>
2 <sup>nd</sup> Cycle	Dr. Angeliki Kokkinaki	1 <sup>st</sup> or 2 <sup>nd</sup>
<b>Mode of Delivery</b>	<b>Work Placement</b>	<b>Corequisites</b>
Distance Learning	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 online lectures, online presentation of relevant material, practical exercises (individual or team work), assignments, and coursework.

**Assessment Methods:**

Project 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