



UNIVERSITY OF NICOSIA

ΠΑΝΕΠΙΣΤΗΜΙΟ ΛΕΥΚΩΣΙΑΣ

Course Code MIS-435	Course Title Business Intelligence	Credits (ECTS) 6
Department MIS	Semester Fall, Spring	Prerequisites Junior Standing
Type of Course Required	Field Business	Language of Instruction English
Level of Course 1 st Cycle	Year of Study 3 rd or 4 nd	Lecturer Dr. Dimosthenis Georgiadis
Mode of Delivery Face-to-face	Work Placement N/A	Office None
Recommended Optional Programme Components: N/A		

Objectives of the Course:

The main objectives of the course are:

- Introduce the concept of business intelligence.
- Discuss the various methods that business intelligence can aid in effective decision-making.
- Demonstrate ways to create business intelligence.
- Study the database structures to serve as the source of business intelligence.
- Introduce the fundamental concepts necessary for the design, implementation, and delivery of business intelligence.
- Explain the basics of business intelligence such as 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.
- Explain the importance of delivering business intelligence to decision-makers in a timely manner.

Learning Outcomes:

Students will be able to:

- Explain the importance of business intelligence towards effective decision making and identify various business intelligence methods.
- Identify and discuss business intelligence issues including 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.
- Follow the methodology and apply techniques for the design, implementation, and delivery of business intelligence.

Course Contents:

1. Basic Concepts and Architecture of Business Intelligence Systems.

2. The Fundamentals of Business Intelligence:
 - a) Database Systems
 - b) Basic Concepts and Architecture
 - c) OLTP Systems
 - d) Entity Relationship Model
 - e) Relational Data Model
 - f) SQL Query Language
3. OLTP Systems vs. Data Warehousing
4. Dimensional Modeling
5. Designing Data-Marts
6. Creating Data-Marts
7. Populating Data-Marts
8. Cube Building
9. Analysis of the Requirements of the Final Project
10. MDX Scripting and Querying
11. Reporting

Teaching Methods:

Lectures, Guest Lecture, Case Studies, Lab Assignments.

Assessment Methods:

Lab Assignments, Midterm Exam, Final Project, Final Exam.

Required Textbooks:

Authors	Title	Publisher	Year	ISBN
B. Larson	Delivering Business Intelligence with Microsoft SQL Server 2005	McGraw Hill/Osborne		0072260904
R. Elmasri & S. Navathe	Fundamentals of Database Systems 5 th edition	Addison Wesley		0321369572

Recommended

Textbooks/Reading:

Authors	Title	Publisher	Year	ISBN
L. Langit	Foundations of SQL Server 2005 Business Intelligence	Apress		1590598342
R. Kimball (W. H. Inmon)	The Data Warehouse Toolkit	Wiley		0471153370