HONG KONG BAPTIST UNIVERSITY
COURSE OUTLINE

1. COURSE TITLE

Business Intelligence

2. COURSE CODE

COMP7810

3. NO. OF UNITS

3 Units

4. OFFERING DEPARTMENT

MSc in Information Technology Management

5. PREREQUISITES

Nil

6. MEDIUM OF INSTRUCTION

English

7. AIMS & OBJECTIVES

To provide a study of business intelligence and underlying techniques, including data warehousing, data analytics, data maining and text mining. Emphasis will be placed on the understanding of enabling technologies and their applications to improved operations and decision making in business and healthcare contexts.

8. COURSE CONTENT

I. The Business Intelligence Perspective
- Major characteristics and competitive advantages of business intelligence
- Business intelligence and decision support
- Structure and components of business intelligence and decision support systems

II. The Data Warehouse
- Characteristics of a data warehouse
- Data warehouse architectures
- Star and snowflake schemas
- Data integration and the extraction, transformation, and load (ETL) process

- Data warehouse development
- OLAP (Online Analytic Processing)
- Multi-dimensional analysis

III. Business Analytics
- Knowledge discovery and information mining
- Business statistics
- Data mining
- Text mining

IV. Case Studies and Applications
- Customer relationship management (CRM)
- Supply chain management (SCM)
- Business Performance Management (BPM)
- Clinical Decision Support Systems

9. COURSE INTENDED LEARNING OUTCOMES (CILOs)

CILO	By the end of the course, students should be able to:
CILO 1	Describe business intelligence methodologies and concepts
CILO 2	Explain the characteristics, architectures, and development of data warehouses and decision support systems
CILO 3	Explain business analytics and mining techniques
CILO 4	Perform data warehouse design
CILO 5	Formulate analysis queries for analyzing business data
CILO 6	Apply appropriate intelligence techniques to extract significant patterns and solve problems in business and healthcare contexts

10. TEACHING & LEARNING ACTIVITIES (TLAs)

CILO alignment	Type of TLA
1, 2, 3	Lectures, project or problem-solving problem, class presentation, problem and laboratory classes
4, 6	Lectures, exercises and problem-solving assignments, or project
5	Problem-solving and laboratory classes, or project
6	Lectures, exercises and assignments, independent information search and research as required by the project, problem or laboratory tasks

11. ASSESSMENT METHODS (AMs)

Type of Assessment	Weighting	CILOs to be addressed	Description of Assessment Tasks

Methods			
Continuous Assessment	40 %	1, 2, 3, 4, 5, 6.	This may include written assignments, lab assignments and a student project. Assignments are designed to assess the students' mastery of the techniques and applications of data warehouses and analytics and are related mainly to learning outcomes 2, 3, 4, and 6. The lab assignments and student project are designed to achieve learning outcomes 4, 5, 6 by requiring students design and implement creative solutions through the application of the methodologies learned.
Examination	60 %	1, 2, 3, 4, 5, 6	The final examination is designed to measure the extent to which the students have reached all of the learning outcomes. Students are required to have a good mastery of the concepts, techniques, methodologies, and applications of business intelligence to familiar as well as novel business situations and problems.

Last Update: 2021-06-10
Published Date: 2021-06-30

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