FUTURE UNIVERSITY IN EGYPT جامعة المستقبل

Faculty of Computers and Information Technology

Business Intelligence

Information :

Course Code :	IS465	**Level :**	Undergraduate	**Course Hours :**	3.00- Hours
Department :	Department of Information Systems				

Area Of Study :

-Combine and evaluate different tools and facilities for data integration, warehousing and analysis
-Use modern techniques, up to date methods and tools for business intelligence and decisions making
-Compare, evaluate and select methodologies from range of techniques, theories and methods to develop business intelligence systems
-Satisfy the qualifications required by potential employers
-Understand knowledge that enhances skills in fundamental area of decision making.
-Implement and evaluate effectively the merits of software and information systems using appropriate analytical and technical skills
-Use and adopt the appropriate knowledge and skills base to pursue a career managing and developing information systems in a contemporary business context
-Understand the operational, strategic and practical issues in information systems currently relevant to small, medium and large enterprises

Description :

The course covers some historical aspects of AI concepts and techniques including the Turing test and Physical symbol systems. The course also introduces the concept of state space trees for AI problems modeling as well as basic and heuristic search techniques: depth-first, breadth-first, generate-and-test, hill-climbing and Best-first search techniques. Search refinement includes Mini-Max search procedure as well as Alpha-beta cut-off secondary search. Knowledge representation issues and knowledge representation techniques include: rules, prepositional and predicate logic, semantic networks and frames. Forward and backward reasoning methodologies are also discussed. Applications include Expert Systems, Case-Based Reasoning, Game Playing and Intelligent Agents. The course provides hands-on experience through the introduction of JAVA programming language and the design and implementation of simple AI applications using case tools.

Course outcomes :

a.Knowledge and Understanding: :	
1 -	Describe the business intelligence techniques
2 -	Describe decision support techniques
3 -	Explain data warehousing, data mining, and predictive analysis techniques
b.Intellectual Skills: :	
1 -	Compare and differentiate between analytical methods
2 -	Select and apply analytical skills on text and Big data
3 -	Evaluate and integrate data and information for problem solving
c.Professional and Practical Skills: :	
1 -	Manipulate big data and draw conclusions
2 -	Adapt different skills for data science

3 -	Produce technical reports and visualizations
d.General and Transferable Skills: :	
1 -	Work in a team effectively and efficiently considering time and stress management
2 -	Apply communication skills and techniques in presentations and report writing for range of audiences using various methods and tools

ABET Course outcomes :	
1 -	Use modern techniques, and advanced methods and tools for business intelligence and decisions making
2 -	Compare, evaluate, and select methodologies, techniques, and methods to develop business intelligence systems
3 -	Understand knowledge that enhances skills in fundamental area of decision making.
4 -	Understand the operational, strategic and practical issues in information systems currently relevant to small, medium and large enterprises

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Overview of Business Intelligence, Analytics and Decision Support	4	2	2
Data Warehousing ï Data Integration	4	2	2
Data Warehousing ï OLAP	4	2	2
Business Reporting ï Visual Analytics	4	2	2
Data Mining ï Predictive Models	4	2	2
Data Mining ï Applications	4	2	2
Text and Web Analytics ï Natural Language Processing and Text Mining	4	2	2
Text and Web Analytics ï Sentiment analysis and Social Analytics	4	2	2
Mid-Term Exam	2		
Big data and Analytics ï Big Data Definition, Technologies and Applications	4	2	2
Big data and Analytics ï Data Science, Event and Stream Analytics	4	2	2
Business Analytics: Emerging Trends and Future Impacts	4	2	2
Presentation/Discussion of Case Studies	4	2	2
Final Exam	2		

Teaching And Learning Methodologies :
Interactive Lectures including Discussions
Practical Lab Sessions
Reading Materials
Online Material
Case Studies
Presentations
Problem Solving

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Assignments	5.00	4	
Final Exam	40.00	14	
Midterm Exam (s)	20.00	9	
Others (Participations)	5.00		
Presentations	5.00	10	
Quizzes	10.00	5	
Team Work Projects	15.00	12	

Course Notes :

An Electronic form of the Course Notes and all the slides of the Lectures is available on the Students Learning Management System (Moodle)

Web Sites :

www.ekb.eg