QF05/0408-4.0E	Course Plan for Bachelor program - Study Plan Development and Updating Procedures/ Management Information Systems Department

Study plan No.	2021/2022		**University Specialization**	Business Analytics	
Course No.	0506712		**Course name**	**Business Intelligence Systems**	
Credit Hours	3		**Prerequisite/ Co-requisite**		
Course type	☐ MANDATORY UNIVERSITY REQUIREMENT	☐ UNIVERSITY ELECTIVE REQUIREMENTS	☐ FACULTY MANDATORY REQUIREMENT	☐ Support course family requirements	✓Mandatory requirements	☐ Elective requirements
Teaching style	☐ **Full online learning**		☐ **Blended learning**		✓**Traditional learning**	
Teaching model	☐ **1 Synchronous: 1 asynchronous**		☐ **1 face to face : 1 asynchronous**		✓**2 Traditional**	

Faculty member and study divisions' information (to be filled in each semester by the subject instructor)

Name	Academic rank	Office No.	Phone No.	E-mail	
Dr. Qeethara Al-Shayea	Professor			drqeethara@zuj.edu.jo	
Office hours					
Division number	**Time**	**Place**	**Number of students**	**Teaching style**	**Approved model**

Brief description

This course will examine Business Intelligence (BI) technologies that help a company to improve its business. It discusses BI topics from both managerial and technical perspectives. Managerial perspectives discuss how BI affects the organization's decision-making process, while technical perspectives discuss the foundation for an intelligent system. The course will discuss key issues starting from BI as a process and architecture, Warehousing, Online Analytical Processing, Data Mining, different data mining algorithms such as decision tress, KNN and K-means, Association rules and Neural Networks). Practical exercises and projects will be assigned to enhance students' experience in business intelligent systems.

Learning resources

Course book information (Title, author, date of issue, publisher ... etc.)	Business intelligence, analytics, and data science: a managerial perspective, R. Sharda, D. Delen, E. Turban, Pearson, 2018.			
Supportive learning resources (Books, databases, periodicals, software, applications, others)	IBM SPSS 20			
Supporting websites				
The physical environment for teaching	☐ Class room	✓labs	☐ Virtual educational platform	☐ Others
Necessary equipment and software	IBM SPSS			
Supporting people with special needs				
For technical support				

Course learning outcomes (S= *Skills, C= Competences K= Knowledge,)*

No.	Course learning outcomes	The associated program learning output code
	Knowledge	
K1	Demonstrate an understanding of the business intelligence, analytics, and data mining	
K2	Analyze the basic structure of Neural networks.	
K3	Being able to do predictive analytics.	
	Skills	
S1	Explaining how to use predictive analytics.	
S2	Defining and explaining the business intelligence, analytics, and data mining.	
S3	Help business become more effective and efficient in their operation.	
	Competences	
C1	Knowing the fundamentals and details business intelligence, analytics, and data mining.	
C2	Knowing the predictive analytics.	
C3	Knowing the Neural networks.	

Mechanisms for direct evaluation of learning outcomes

Type of assessment / learning style	Fully electronic learning	Blended learning	Traditional Learning (Theory Learning)	Traditional Learning (Practical Learning)
Midterm exam	30%	**30%**	40%	30%
Participation / practical applications	0	**0**	10%	30%
Asynchronous interactive activities	30%	**30%**	0	0
Final exam	40%	**40%**	50%	40%

Note 1: Asynchronous interactive activities are activities, tasks, projects, assignments, research, studies, projects, work within student groups ... etc, which the student carries out on his own, through the virtual platform without a direct encounter with the subject teacher.

Note 2: According to the Regulations of granting Master's degree at Al-Zaytoonah University of Jordan, 40% of final evaluation goes for the final exam, and 60% for the semester work (examinations, reports, research or any scientific activity assigned to the student).

Schedule of simultaneous / face-to-face encounters and their topics

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Week	Subject	learning style*	Reference **
1	An overview of business intelligence, analytics, and data science	Lecture	
2	Data mining concepts and applications Definitions, Characteristics, and benefits How data mining works Data mining versus statistics	Lecture	
3	Data mining applications	Lecture	
4	Data mining process Other data mining standardized processes and methodologies	Lecture	
5	Data mining methods -Classification -Clustering -Association rule	Lecture	
6	Neural Networks Definitions, characteristics, types, and applications How Neural network works?	Lecture	
7	Data mining software tools -IBM SPSS -Cases	Lecture	
8	Text analytics and text mining overview	Lecture	
9	Natural language processing (NLP)	Lecture	
10	Text mining applications - Marketing applications - Security applications - Biomedical applications - Academic applications	Lecture	
11	Text mining process	Lecture	
12	Sentiment analysis overview Sentiment analysis process Sentiment analysis applications	Lecture	
13	Web mining overview Web context and web structure mining	Lecture	
14	Search engines Search engines optimization Methods for search engines optimization	Lecture	
15	Project building	Lecture	
16	Project building	Lecture	

*** Learning styles: Lecture, flipped learning, learning through projects, learning through problem solving, participatory learning ... etc.**

**** Reference: Pages in a book, database, recorded lecture, content on the e-learning platform, video, website ... etc.**

Schedule of asynchronous interactive activities (in the case of e-learning and blended learning)

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Week	Task / activity	Reference	Expected results
1	Knowing business intelligence, analytics, and data science		
2	Knowing data mining concepts and applications		
3	Using data mining types		
4	Applying data mining process		
5	Using data mining methods		
6	Using neural networks		
7	Using IBM SPSS		
8	Applying NLP		
9	Applying text analytics and text mining		
10	Applying text mining applications		
11	Using text mining process		
12	Using sentiment analysis		
13	Using web mining		
14	Using Search engines		
15	Project/case building		
16	Project/case building		