



The University of Jordan
Accreditation & Quality Assurance Center

Business Intelligence (1904371)

Fall 2022-2023

COURSE Syllabus



1	Course title	Business Intelligence
2	Course number	1904371
3	Credit hours (theory, practical)	3 theory
	Contact hours (theory, practical)	3 theory
4	Prerequisites/corequisites	Statistical Packages 1904255
5	Program title	Information Technology
6	Program code	4
7	Awarding institution	The University of Jordan
8	Faculty	King Abdullah II for Information Technology
9	Department	Information Technology
10	Level of course	3 rd Year
11	Year of study and semester (s)	Any
12	Final Qualification	Bachelor (B.Sc.)
13	Other department (s) involved in teaching the course	none
14	Language of Instruction	English
15	Date of production/revision	10-9-2022
16	Required/ Elective	Required

17. Course Coordinator:

Instructor	Office hours	Office Phone	E-Mails
Dr. Ali Rodan	Mon 2:00-3:00	22631	a.rodan@ju.edu.jo

18. Course Description:

Business Intelligence Systems have become increasingly important in today's competitive environment. According to recent studies, companies that use BI and manage their data as a strategic resource and invest in its quality are already pulling ahead in terms of reputation and profitability. 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 (i.e., Machine learning, Warehousing, Online Analytical Processing, Data Mining). Practical exercises and projects will be assigned to enhance students' experience in business intelligent systems. Weekly lab session.



19. Course aims and outcomes:

A- Aims:

This course is intended to give BIS students an overview of the business Intelligence topics. At the course completion, students will understand the fundamentals of the Business Intelligence and they will be able to evaluate BI techniques to be used for certain applications.

B- Intended Learning Outcomes ((Mapped directly to KPI → ILO≡KPI):

Upon successful completion of this course students will be able to ...

B1: To provide an understanding of BI concepts and techniques [SO 1]

B2: To differentiate between machine learning and data mining [SO 2]

B3: To introduce and deal with machine learning techniques [SO 2]

B4: To understand machine learning and use techniques such lazy learning, decision trees and Bayesian learning, neural network, k-mean clustering, K nearest neighbor, association rules. [SO 2]

B5: To related the machine learning techniques with real applications and case studies [SO 1,2]

B6: To understand data mining and data warehousing techniques [SO 1,2]

B7: To work and solve problems related to data mining [SO 1,2]

20. Topic Outline and Schedule:

Topic	Week	Instructor	Achieved ILOs	Evaluation Methods	Reference
Introduction to Business Intelligence (BI)	1	Ali Rodan	B1	Exams	E-learning portal
Data Warehouse	1	Ali Rodan	B1,B6	Exams	E-learning portal
Business Analytics	1	Ali Rodan	B5	Exams	E-learning portal
Data Preparation and Visualization	1	Ali Rodan	B2, B7	Homeworks, Exams	E-learning portal
Data Mining	2	Ali Rodan	B2	Exams	E-learning portal
Decision Trees	2	Ali Rodan	B4,B7	Assignments, Exams	E-learning portal
Artificial Neural Networks	2	Ali Rodan	B4,B7	Assignments, Exams	E-learning portal
K-mean & K-nearest neighbor	2	Ali Rodan	B4,B7	Assignments, Exams	E-learning portal
Association Rules	2	Ali Rodan	B4,B7	Assignments, Exams	E-learning portal
Ensemble learning	1	Ali Rodan	B3	Assignments, Exams	E-learning portal



21. Teaching Methods and Assignments:

Development of ILOs is promoted through the following teaching and learning methods:

Method	Lecture	Demo	Laboratory	Case study
Learning outcomes	B1+B2+B3	B4,B5,B6,B7	B5+B7	B4+B5+B7
Assessment	Exams + Assignment	Exams + Assignments	Project + Presentation	Exams + presentation

22. Evaluation Methods and Course Requirements:

Midterm Exam	30 marks.
HWs and Project	20 marks.
Final Exam	50 marks.

23. Course Policies:

A- Attendance policies:

Students are responsible for class attendance and for all material covered in class. It is the students' responsibility to turn in their homework assignments to their instructors by the announced due date/time.

The students are allowed to have no more than 15% absence of the whole number of lectures in the semester.

B- Absences from exams and handing in assignments on time:

Any absence for the exams is not acceptable unless a strong excuse is given and accepted by the lecturer then a makeup exam will be held

C- Health and safety procedures:

D- Honesty policy regarding cheating, plagiarism, misbehavior:

E- Grading policy:

F- Available university services that support achievement in the course:

24. Required equipment:

Microsoft power BI, RapidMiner , and Tableau



25. References:

A- Required book (s), assigned reading and audio-visuals:

Business Intelligence: A Managerial Approach (2023) Turban, Sharda, Delen, King, Publisher: Pearson, Edition: 4th.

Recommended books, materials, and media:

26. Additional information:

TBD

Name of Course Coordinator: -----Signature: ----- Date: -----

Head of curriculum committee/Department: ----- Signature: -----

Head of Department: ----- Signature: -----

Head of curriculum committee/Faculty: ----- Signature: -----

Dean: -----Signature: -----

Copy to:

Head of Department
Assistant Dean for Quality Assurance
Course File