Course Syllabus

1	**Course title**	Business Intelligence and Analytics	
2	**Course number**	1605721	
3	**Credit hours**	3 Credit hours	3 Credit hours
	Contact hours (theory, practical)	3 hours	
4	**Prerequisites/corequisites**		
5	**Program title**	Master in Business Informatics	
6	**Program code**	05	
7	**Awarding institution**	The University of Jordan	
8	**School**	School of Business	
9	**Department**	Management Information Systems	
10	**Course level**	Masters	
11	**Year of study and semester (s)**	2021/2022 First Semester	
12	**Other department (s) involved in teaching the course**	No	
13	**Main teaching language**	English	
14	**Delivery method**	☒Face to face learning ☐Blended ☐Fully online	
15	**Online platforms(s)**	☒Moodle ☒Microsoft Teams ☐Skype ☐Zoom ☐Others……	
16	**Issuing/Revision Date**	Oct 9 , 2021	

17 Course Coordinator:

Name: Ashraf Bany Mohammed	Contact hours: Sun : 3-4 Pm
Office number: Building 4 - 102	Phone number:
Email: a.bany@ju.edu.jo	

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18 Other instructors:

Name: Office number: Phone number: Email: Contact hours: Name: Office number: Phone number: Email: Contact hours:

19 Course Description:

As stated in the approved study plan. This course aims to provide students with understanding of business intelligence and analytics and its role in developing and sustaining competitive advantage for business organizations. This course will equip students with the necessary knowledge to apply business intelligence and analytics in various business contexts and learn skills required to scientifically and creatively deal with data in order to assist business organizations in enhancing their competitive edge

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20 Course aims and outcomes:

A- Aims:

1. to have students understand the general principles of Business Intelligence and Analytics.
2. to have students realize challenges, and limitations associated with Business Intelligence and Analytics.
3. to have the students understand the overall technologies used in Business Intelligence and Analytics
4. to give the student a practical experience on the development of Business Intelligence and Analytics.

B- Students Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

SLOs / SLOs of the course	SLO (1) Knowledge and Understanding	SLO (2) Intellectual Analytical and Cognitive Skills	SLO (3) Subject- Specific Skills	SLO (4) Transferable Key Skills
1	Define the fundamental terms, concepts and theories associated with Business Intelligence and Analytics	Discuss and develop skills in the analysis, design and implementation of Business Intelligence and Analytics Systems	Improve hands-on skills through the Business Intelligence and Analytics Systems project using technical tools for building state-of-the-art Business Intelligence and Analytics Systems, especially Web-Based systems that use advanced computing and networking technologies	Report examples and case studies documenting computer support for organizational decision making, and various planning, analysis and control tasks.
2	Illustrate that most Business Intelligence and Analytics are designed to complement	Examine user interface design issues and evaluate the user interfaces and capabilities of	Perform the organizational and social implications of Business Intelligence and	Apply On-Line analytical processing, Data Warehousing, Data Mining, and Data Marts along

	rather than replace company systems.	Business Intelligence and Analytics Systems,	Analytics Systems.	with real Business Intelligence and Analytics Systems.
3	Analyze and evaluate data for use in a business environment.	Acquire the experience of how to approach complex Business Intelligence and Analytics Systems foundations, design and architecture.	Master the fundamental data management protocols within the Business Intelligence and Analytics Systems architecture	Handle complex data in Business Intelligence and Analytics Systems
4	Acquire the ability to summarize and compare the fundamental concepts and techniques of data management within the field of Business Intelligence and Analytics.	Get the awareness of the data management role in the real business environment	Acquire the experience of how the data management can be utilized as a stand-alone Business Intelligence and Analytics Systems.	
5	Recommend data manipulation and analysis algorithms for Business Intelligence and Analytics Systems.	Acquire the ability to insights deeply the Business Intelligence and Analytics Systems in the business society	Acquire the ability to get hands-on the link between the data modeling and Business Intelligence and Analytics Systems.	
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21. Topic Outline and Schedule:

Week	Lecture	Topic	Intended Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
1	1	Chapter 1. The Business Demand for Data, Information, and Analytics		Face to face	MSTEAMS	Synchronous	Quiz	Reference book and case studies
2	2	Chapter 2. Justifying BI: Building the Business and Technical Case		Face to face	MSTEAMS	Synchronous	Homework	Reference book and case studies
3	3	Chapter 3. Defining Requirements—Business, Data, and Quality		Face to face	MSTEAMS	Synchronous	Quiz	Reference book and case studies
4	4	Chapter 4: Architecture		Face to face	MSTEAMS	Synchronous	Homework	Reference book and case studies

		Framework						
5	5	Chapter 5. Information Architecture		Face to face	MSTEAMS	**Synchronous**	Quiz	Reference book and case studies
6	6	Chapter 6. Data Architecture		Face to face	MSTEAMS	**Synchronous**	Homework	Reference book and case studies
7	7	Mid-term exam		Face to face	MSTEAMS	**Synchronous**	Exam	Reference book and case studies
8	8	Chapter 7. Technology & Product Architectures		Face to face	MSTEAMS	**Synchronous**	Homework	Reference book and case studies
9	9	Chapter 13. Business Intelligence Applications		Face to face	MSTEAMS	**Synchronous**	Case study analysis	Reference book and case studies
10	10	Chapter 14. BI Design and		Face to face	MSTEAMS	**Synchronous**	Case study analysis	Reference book and case studies

		Development						
11	11	Chapter 15. Advanced Analytics		Face to face	MSTEAMS	**Synchronous**	Homework	Reference book and case studies
12	12	Chapter 17. People, Process and Politics		Face to face	MSTEAMS	**Synchronous**	Homework	Reference book and case studies
13	13	Chapter 18. Project Management		Face to face	MSTEAMS	**Synchronous**	Case study analysis	Reference book and case studies
14	14	Ethical issue in BI and AI		Face to face	MSTEAMS	**Synchronous**	Case study analysis	Reference book and case studies (1.https://www.sciencedirect.com/science/article/pii/S037722171930373X 2.https://programmeinf

								o.bi.no/nb/kurs/EBA-3520/2022-var)
15	15	Final Research project paper presentation		Face to face	MSTEAMS	**Synchronous**	Presentation	Self-study

22 Evaluation Methods:

Opportunities to demonstrate achievement of the SLOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	SLOs	Period (Week)	Platform
Midterms	30	Topics 1 - 6		Week 9	Face to face
Assignments and Quiz	10	Different		Week 1-15	MS teams and Moodle
Research project Term Paper	20	BIA		Week 15	MS teams and Moodle
Final	40	All material		Week 16	Face to face

23 Course Requirements

(e.g: students should have a computer, internet connection, webcam, account on a specific software/platform…etc):

The courses require students to have a computer or smartphone and internet connection

24 Course Policies:

A- Attendance policies: Based on University Bylaws

B- Absences from exams and submitting assignments on time: Based on University Bylaws

C- Health and safety procedures: Based on University Bylaws

D- Honesty policy regarding cheating, plagiarism, misbehavior: Based on University Bylaws

E- Grading policy: Based on University Bylaws

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

25 References:

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

1. Sherman, R. (2015). Business intelligence guidebook: From data integration to analytics. Newnes. Elsevier
2. Efraim, T., Sharda, R., & Delen, D. (2014). Business intelligence and analytics: Systems for decision support. Prentice Hall
3. McKinney, W. (2018). Python for data analysis: Data wrangling with Pandas, NumPy, and IPython. " O'Reilly Media, Inc.".

B- Recommended books, materials and media:

4. Holsapple, C.W. and Whinston, A.B. eds., 2013. Decision support systems: theory and application (Vol. 31). Springer Science & Business Media.
5. Papathanasiou, J., Ploskas, N. and Linden, I. eds., 2016. Real-World Decision Support Systems: Case Studies (Vol. 37). Springer.

Negash, S. and Gray, P., 2008. Business intelligence. In Handbook on decision support systems 2 (pp. 175-193). Springer, Berlin, Heidelberg.

26 Additional information:

NA

Name of Course Coordinator: Ashraf Bany Mohamed Signature: ---------- Date: Oct 9,2021
Head of Curriculum Committee/Department: ---------- Signature: ----------
Head of Department: ---------- Signature: ----------
Head of Curriculum Committee/Faculty: ---------- Signature: ----------
Dean: ---------- Signature: ----------