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**Project Title:** Modernization of Teaching Methodologies in Higher Education: Eu Experience For Jordan And Palestinian Territory

**Project acronym:** METHODS

**Project Number:** 561940-EPP-1-2015-1-JO-EPPKA2-CBHE-JP

**Funding scheme:** Erasmus+ Programme (Capacity-Building projects in the field of Higher Education (E+CBHE))

**Start date of the project:** 15/10/2015                      **Duration:** 42 months

<b>Deliverable title</b>	<b>Course Outline</b>
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<b>Organisation name(s)</b>	<b>The University of Jordan (UJ)</b>
<b>WP Number</b>	<b>5</b>
<b>WP Leader</b>	<b>Birzeit University</b>

**Project co-ordinator name, title and organisation:**

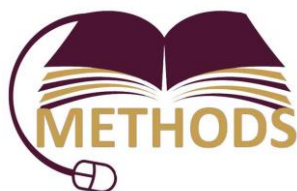
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## The University of Jordan (UJ)

### King Abdallah II School of Information Technology (KASIT)

<b>Course title/code</b>	Business Intelligence	1904371
<b>Instructor /office</b>	Dr. Ali Rodan	22631
<b>Semester- Year</b>	1st Semester 2017/2018	
<b>Compulsory/Elective</b>	Compulsory	
<b>Prerequisites</b>	Statistical Packages 1904255	

<b>Course Description</b>	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.
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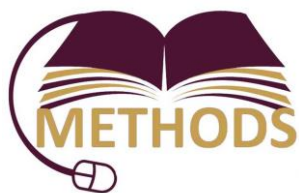
<b>Generic Competences*</b>	This course is intended to give students an overview of Business Intelligence topics. At the course completion, students will understand the fundamentals of Business Intelligence and they will be able to evaluate BI techniques that can be used for certain applications.
<b>Specific Competences (SCs)</b>	<ol style="list-style-type: none"> <li>1. To provide an understanding of BI concepts and techniques</li> <li>2. To differentiate between machine learning and data mining</li> <li>3. To introduce and deal with machine learning techniques</li> <li>4. To understand machine learning and use techniques such lazy leaning, decision trees and Bayesian learning, neural network, k-mean clustering, K nearest neighbor, association rules.</li> <li>5. To related the machine learning techniques with real applications and</li> </ol>

	<p>case studies.</p> <p>6. To understand data mining and data warehousing techniques</p> <p>7. To work and solve problems related to data mining.</p>
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- These competences related also to the project Methods

	Course contents	SC1	SC2	SC3	SC4	SC5	SC6	SC7
1	Introduction to Business Intelligence	x						
2	Data Warehouse						x	
3	Business Analytics					x	x	
4	Data Preparation and Visualization		x	x				
5	Data Mining				x			x

Schedule				
Week	Subject	Activity Description *	Evaluation Criterion	
			Description	%
1	Introduction to Business Intelligence (BI)			
2	Data Warehouse			
3	Data Warehouse Con't	Inverted Classroom (Post quizzes will be conducted at end of teaching the topic)	quiz	5
4	Business Analytics			
5	Data Preparation and Visualization			
6	Data Mining			
7	Data Mining Con't	Inverted Classroom (Post quizzes will be conducted at end of teaching the topic)	quiz	5
8	Decision Trees			
9	Decision Trees Con't		Midterm exam	30
10	Artificial Neural Networks			
11	K-mean			
12	K-nearest neighbor	Inverted Classroom (Post quizzes will be conducted at end of teaching the topic)	quiz	5
13	Association Rules			
14	Association Rules Con't			



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15	Ensemble learning	Inverted Classroom (Post quizzes will be conducted at end of teaching the topic)	quiz	5
16	Ensemble learning Con't			

\* PBL, MOOC, Inverted Classroom should be introduced within activity description

<b>Textbook and References</b>	<b>Business Intelligence and Analytics: Systems for Decision Support (10th Edition)</b> by Ramesh Sharda, Dursun Delen, Efraim Turban. Publisher: Pearson, ISBN: 978-0133050905.	
<b>Overall Assessment Criteria</b>	<b>Method</b>	<b>Weight [%]</b>
	Attendance / participation	
	Quizzes	20
	Midterm	30
	Project	
	Assignments	
	Final Exam	50