



KINGDOM OF SAUDI ARABIA
IMAM MOHAMMAD IBN SAUD ISLAMIC UNIVERSITY
COLLEGE OF COMPUTER AND INFORMATION SCIENCES
INFORMATION SYSTEMS DEPARTMENT
BACHELOR IN INFORMATION SYSTEMS

المملكة العربية السعودية
جامعة الإمام محمد بن سعود الإسلامية
كلية علوم الحاسب والمعلومات
قسم نظم المعلومات
بكالوريوس نظم المعلومات

SYLLABUS

IS1456: Big Data

CREDIT HOURS	3 credit hours (Lectures: 3)
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PREREQUISITE	IS1340 (IS Project Management)
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Instructor:
Contact information and office hours
Office No: To be announced (TBA)
Office Hours: TBA
E-mail: _____@imamu.edu.sa

COURSE DESCRIPTION
Upon completion of this course, students will be able to apprehend necessary knowledge about big data and how can big data help in answering real world problems to make quick and correct decisions.

COURSE LEARNING OUTCOMES (CLOs)		Aligned SOs
1	Knowledge and Understanding	
1.1	Define the concept of big data as answer to real life questions	1(I)
1.2	Outline strategies for big data usage	1(P)
1.3		
1.4		
1.5		
2	Skills :	
2.1	Apply big data analytics techniques to answer real life questions	2(A)
2.2		
2.3		
2.4		
2.5		
3	Values:	
3.1	Function effectively on teams to accomplish a common goal	5(P)



3.2	Present a topic in a compelling manner	3(P)
3.3		
3.4		
3.5		

TEACHING Strategies
Lectures Self-Learning

No	List of Topics	Contact Hours	Self-Learning
1	Overview of Big data, BI, Analytics, and Decision Support	3	
2	Foundations and Technologies for Big data	6	
3	Descriptive Analytics – Analytics based on Data Warehousing, Business Reporting, Visual Analytics, and BPM	6	
4	Predictive Analytics – Data Mining Concepts and Process overview, Using ANN, SVM, and kNN for Analytics, Text Analytics and Mining, Web Analytics and Mining	6	2
5	Prescriptive Analytics – Model-based Decision Making	6	2
6	Prescriptive Analytics – Heuristic Search Methods and Simulation	3	2
7	Visualization and communication of results	3	
8	Project discussions	3	
9			
10			
11			
12			
Total		36	6

TEXT BOOK
Big Data: Using SMART Big Data, Analytics and Metrics To Make Better Decisions and Improve Performance by Bernard Marr ISBN: 978-1-118-96583-2 March 2015

REFERENCES
N/A

Course Assessment Methods



No	Assessment Method	Due Week	% of Total Assessment
1	Quiz	4	10
2	Assignment	9	10
3	Midterm	7	20
4	Project / Lab Exam	11	20
5	Final Exam	13	40