

M.A. PROGRAM IN BUSINESS MANAGEMENT (WITH THESIS)
COURSE SYLLABUS FORM

Course Details				
Code		Academic Year		Semester
BM050		1		Elective
Title		T	A	L
Data Analytics and Big Data		3	0	0
ECTS		6		
Language	English			
Level	Undergraduate	Graduate	X	Postgraduate
Department / Program	Business Management			
Forms of Teaching and Learning	Face to face			
Course Type	Compulsory	Elective	X	
Objectives	Imparting basic knowledge about Big Data and Data Analytics and raising awareness about the corporate use and benefits of this technology			
Content	Storage, management and analysis of Big Data and corporate use of Big Data			
Prerequisites	-			
Coordinator	Assoc. Prof. Dr. Müge KLEIN			
Lecturer(s)	-			
Assistant(s)	-			
Work Placement	-			
Recommended or Required Reading				
Books / Lecture Notes	-			
Other Sources	<ul style="list-style-type: none"> - Bahga, A., & Madiseti, V. (2016). <i>Big data science & analytics: A hands-on approach</i>. VPT. - Provost, F., & Fawcett, T. (2013). <i>Data Science for Business: What you need to know about data mining and data-analytic thinking</i>. " O'Reilly Media, Inc." 			
Additional Course Material				
Documents	-			
Assignments	-			
Exams	-			
Course Composition				
Mathematics und Basic Sciences				50%
Engineering				%
Engineering Design				%
Social Sciences				30%
Educational Sciences				%

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Natural Sciences			%
Health Sciences			%
Expert Knowledge			20%
Assessment			
Activity	Count		Percentage (%)
Midterm Exam	1		40
Quiz			
Assignments			
Attendance			
Recitations			
Projects			
Final Exam	1		60
Total			100
ECTS Points and Work Load			
Activity	Count	Duration	Work Load (Hours)
Lectures	14	3	42
Self-Study	14	3	42
Assignments	1	12	12
Presentation / Seminar Preparation			
Midterm Exam	1	36	36
Recitations			
Laboratory			
Projects			
Final Exam	1	48	48
Total Work Load			180
ECTS Points (Total Work Load / Hour)			6
Learning Outcomes			
1	Students learn the techniques used in Big Data analysis		
2	Students will recognize the corporate application areas associated with Big Data analytics and have the basic knowledge equipment to produce projects/solutions.		
Weekly Content			
1	Introduction		
2	Big Data		
3	Big Data Analytics Platforms		
4	Descriptive/Predictive/Prescriptive Analytics		

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5	Deterministic/Stochastic, Linear/Non-linear Modeling Approaches
6	Data Preparation, Data Normalization
7	Segmentation, Clusters
8	Web Mining
9	Statistical Analysis
10	Data Analytics in Business
11	Data Science and Business Strategy
12	Business Problems and Data Analytics Solutions
13	Business Problems and Data Analytics Solutions
14	Business Problems and Data Analytics Solutions
15	Business Problems and Data Analytics Solutions

Contribution of Learning Outcomes to Program Objectives (1-5)

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13
1	1	3	1	1	5	4	5	1	1	1	2	1	3
2	2	5	5	5	5	4	5	1	1	1	3	1	3

Contribution Level 1: Low 2: Low-intermediate 3: Intermediate 4: High 5: Very High

Compiled by: Assoc. Prof. Dr. Müge KLEIN (Head of Sub-Department Management and Organization)

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