Course Specification
— (Postgraduate)

Course Title:	Business Analytics
Course Code:	STAT 605
Program:	Master of Business Administration
Department:	Business Administration
College:	College of Economics and Administrative Sciences
Institution: :	Al-Imam Mohammad Ibn Saud Islamic University
Version:	2023
Last Revision Date:	20/8/2023

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A. General information about the course:

1. Course Identification:

1. Credit hours: (3)

2. Course type

A.	☐University	☐College	☐Department	☐Track
B.	■Required		☐Elective	

3. Level/year at which this course is offered: (Level 1/ First Year)

4. Course general Description:

This course aims to provide students with a set of useful tools and knowledge for analyzing structured and unstructured data in order to get net insights for better decisions. The course covers a set of statistical analyses such as descriptive and predictive analytics, including regression analysis. Other topics include probability distributions, sampling, statistical inference, spreadsheet models, data mining and simulation. This course provides students with the basic concepts and tools needed to understand the emerging role of business analytics in organizations and shows students how to apply basic business analytics tools in a spreadsheet environment.

5. Pre-requirements for this course (if any):

None

6. Pre-requirements for this course (if any):

None

7. Course Main Objective(s):

Upon completion of this course, the student should be:
- Able to define the basic concepts of business analytics.
- Familiar with the most important methods of analyzing data.
- Aware of the most important technologies used in business analytics.
- Able to make better decisions based on data.

2. Teaching Mode: (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	30	100%
2	E-learning		
3	Hybrid		

No	Mode of Instruction	Contact Hours	Percentage
	• Traditional classroom • E-learning		
4	Distance learning		

3. Contact Hours: (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	30
2.	**Laboratory/Studio**	
3.	**Field**	
4.	**Tutorial**	
5.	**Others (specify)……**	
	Total	30

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods:

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	To demonstrate his knowledge of the concepts linked to business analytics.		Lectures	Exams, assignments.
1.2	To demonstrate his knowledge of the most important methods of analyzing data.	K2	Lectures	Exams, assignments.
1.3	To know the effect of business analytics on decision-making.		Lectures	Exams, assignments.
2.0	**Skills**			
2.1	To be able to use business analytics tools in order to make better decisions based on data.	S1	Comparative studies of some companies in the use of various business analytics systems. Individual and group assignments.	Exams, discussions.
2.2	To identify the different technologies used in business analytics.	S2	Comparative studies of some companies in the use of various information systems. Individual and group	Exams, case studies.

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
			assignments.	
2.3	To assess suitable alternatives in data modeling and analysis processes.		Individual and group assignments	Exams, discussions.
3.0	**Values, autonomy, and responsibility**			
3.1	To demonstrate an ability to take responsibility in self-learning and to employ it effectively.		Lectures, case studies, group discussion, article analysis	Discussions, presentations
3.2	To show an ability to participate in group activities and assignments in professional way.		Lectures, case studies, group discussion, article analysis	Discussions, presentations
3.3	To show his engagement regarding the academic integrity and acceptance of others' opinions.		Lectures, case studies, group discussion, article analysis	Discussions, presentations

C. Course Content:

No	List of Topics	Contact Hours
1.	Review of Descriptive Statistics: Tabular and Graphical	1
2.	Presentations, Numerical Measures	2
3.	Introduction to Probability	3
4.	Discrete Probability Distributions	3
5.	Continuous Probability Distributions	3
6.	Sampling and Sampling Distributions: Point Estimation	3
7.	Interval Estimation	3
8.	Hypothesis Tests	3
9.	Statistical Inference About Means and Proportions with Two Populations	3
10.	Regression analysis	3
11.	Descriptive and predictive Data mining	2
12.	Spreadsheet models	1
Total		**30**

D. Students Assessment Activities:

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Midterm exam 1	6	25%
2.	Group works and presentations	All the term	15%
3.	Case studies	All the term	15%
4.	Participation and attendance	All the term	5%
5.	Final exam	12	40%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

E. Learning Resources and Facilities:

1. References and Learning Resources:

Essential References	Camm, J. D., Cochran, J. J., Fry, M. J., & Ohlmann, J. W. (2020). Business analytics. Cengage Learning.
Supportive References	Evans, J.R. (2017). Business Analytics: Methods, Models, and Decisions (2nd edition). Pearson Albright, S. C., & Winston, W. L. (2016). Business Analytics: Data Analysis and Decision Making (6th edition). Cengage Learning
Electronic Materials	Saudi Digital Library Selected fundamental scientific manuscripts from international high ranked journals (ASQ, AMR…)
Other Learning Materials	Any related book.

2. Educational and Research Facilities and Equipment Required:

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Laboratories and specific software. Less than 30 students in class. Data show projector and Internet connection in class.
Technology equipment (Projector, smart board, software)	Data show projector and Internet connection. Computer lab.
Other equipment (Depending on the nature of the specialty)	Computers with updated windows operating system. The following software packages to be installed on every computer (with frequent updates): • Latest/complete Microsoft office package • Latest SPSS statistical package • Tableau

F. Assessment of Course Quality:

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Instructor	Direct Comparison

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of students assessment	Peer reviewer	Indirect
Quality of learning resources	Coordinator	Indirect
The extent to which CLOs have been achieved	Faculty members	Calculating the percentage of achieving each learning outcome according to the learning matrix previously defined for the course for each group separately, and then for all groups Comparison between the achieved and targeted ratios.
Other	Faculty members	Comparison of the course with its counterpart in other local and international universities

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

G. Specification Approval Data:

COUNCIL /COMMITTEE	Business Administration Department / Head of Department
REFERENCE NO.	Council Meeting no. 13, 06/06/2022
DATE	06/06/2022