Course Specification
(Bachelor)

Course Title:	**Introduction to Probability and Statistics**
Course Code:	**Stat 102**
Program:	**The track of humanity colleges**
Department:	**Department of Basic Sciences**
College:	**Common First Year for the first and second levels.**
Institution:	**King Saud University**
Version:	2024
Last Revision Date:	16/8/2024 – 12/2/1446 H

Table of Contents

A. General information about the course:

1. Course Identification

1. Credit hours: (3)					
2. Course type					
A.	☐University	☒ College	☐Department	☐Track	☐Others
B.	☒ Required		☐Elective		
3. Level/year at which this course is offered: First level /First year(1nd Semester 1445H)					
4. Course general Description:					
There is no					
5. Pre-requirements for this course (if any)**:**					
There is no					
6. Co-requisites for this course (if any)**:**					
There is no					
7. Course Main Objective(s):					
The student will able to understand statistical concepts and Probability, The student will able to understand Organizing the Data and Graphical Representation of the Data, The student will able to compute some measurements of central tendency, The student will able to compute some measurements of dispersion, The student will able to calculate simple linear correlation coefficient. Definitions, Concepts in Probability Calculus and Concept of Probability Function ,The student will able to understand the concept of the random variable and its probability distribution, Types of the random variables, Computing the mean and standard deviation of discrete random variable, the meaning of continuous random variable, Understanding applications of uniform, exponential and normal distribution ..					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	4	100%
2	E-learning		
3	Hybrid • Traditional classroom • E-learning		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	60
2.	**Laboratory/Studio**	
3.	**Field**	
4.	**Tutorial**	
5.	**Others (specify)**	
Total		60

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	Tabular representation of data		Student-centered collaborative learning and self-learning	Homeworks and electronic homework and Half tests and finl tests
1.2	Graphical representation of data, numerical properties of data		Student-centered collaborative learning and self-learning	Homeworks and electronic homework and Half tests and finl tests
1.3	Probability space for a random experiment, probability of		Self-learning, collaborative learning and dealing with the Web.	Homeworks, midterms and electronic

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
	accidents, random variables			homework and final exams
1.4	Simple correlation		Listen, speak, ask questions and work in a collaborative team. Cooperative learning and self-learning	Discussions
2.0	**Skills**			
2.1	Gain some skills in probability calculation		Student-centered collaborative learning and self-learning	Homeworks, electronic homework midterms and final exams
2.2	Gain some skills in descriptive statistics		Student-centered collaborative learning and self-learning	Homeworks, electronic homework midterms and final exams
2.3	Gain some skills in inferential statistics		Student-centered collaborative learning and self-learning	Homeworks, electronic homework midterms and final exams
3.0	**Values, autonomy, and responsibility**			
3.1	Ability to process raw and scheduled data.		Self-learning, collaborative learning and dealing with the Web.	Homeworks, midterms and electronic homework and final exams
3.2	Ability to calculate the probability of accidents related to randomized trials.		Student-centered collaborative learning and self-learning	Homeworks and self-learning and electronic homework
3.3	Ability to calculate the parameters of the community .		Listen, speak, ask questions and work in a collaborative team. Cooperative learning and self-learning	Discussions
3.4	Ability to calculate simple correlation		Listen, speak, ask questions and work	Discussions

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
	coefficient and regression analysis.		in a collaborative team. Cooperative learning and self-learning	

C. Course Content

No	List of Topics	Contact Hours
1.	Basic concepts of mathematics	8
2.	Descriptive statistics	24
3	Regression and linear correlation	4
4	Random experiment and probability of an event	12
5	Random variables and their probability distribution	12
Total		

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Duties and self-learning and electronic homework	Every four weeks	25%
2.	Mid-term test (pans and hematic)	Tenth week	25%
3.	Final test (essay and objective)	Eighteenth week	50%
...			

*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	Introduction to Probability and Statistics, Third Fourth 2019
Supportive References	http://www.mcgraw-hill.co.uk/custom
Electronic Materials	http://ksu.edu.sa/sites/py/ar/mpy/departments/math/Pages/stat140_vedio.aspx http://www.mcgraw-hill.co.uk/custom http://www.mathzone.com/
Other Learning Materials	1- MINITAB Student Release 17 2- SPSS student Version for windows

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classrooms equipped with electronic platform, smart board and projector for 30 students. -A computer lab equipped with technology and equipped with computers to accommodate 30 students per student
Technology equipment (projector, smart board, software)	Computers equipped with statistical programs smart board
Other equipment (depending on the nature of the specialty)	

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Coordinator + Student ssessmen	Periodic visits + student assessment questionnaire
Effectiveness of Students assessment	Trainers + students	Seminars + student assessment questionnaire
Quality of learning resources	Course Coordinator + Students	Periodic visits + student assessment questionnaire
The extent to which CLOs have been achieved		
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	Course Instructor: **Dr. Mohammed Khashan** Signature  The head of the department, Dr. Abdul Rahman AL-zhrani Signature : 
REFERENCE NO.	**1**
DATE	**14/2/1446H – 18/8/2024**