Course Specification

— (Bachelor)

Course Title:	**Population study "Demography"**
Course Code:	**STS426**
Program:	**Applied Statistics & Data Management**
Department:	**Mathematics**
College:	**College of Science**
Institution:	**Majmaah University, Saudi Arabia**
Version:	**2023**
Last Revision Date:	**25-9-2023**

Table of Contents

A. General information about the course:

1. Course Identification

1. Credit hours: (.........)

2. Course type

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

3. Level/year at which this course is offered: (elective)

4. Course general Description:

. Course general Description

Introduction- The nature of demographics- Rates and ratios -Relative numbers- Ratios in population statistics- vital statistics rates-types of ratios-sex ratio- The proportion of women and children- area distributions- Population density
- Population growth rate- Net birth and death rates
- Death rate by age- infant mortality rate- Birth rate by age- General fertility rate- The total fertility rate- net reproduction rate- accuracy and error- life tables- Study the death rate- Fertility measurements- Population growth- Migration and population distributions.

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

introduction to Statistics STS 121

6. Co-requisites for this course (if any):

NA

7. Course Main Objective(s):

the main objective of this course is to study the population statistics and population growth rate in terms of different parameters such as birth , death, Migration and population distributions

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	20	100%
2	E-learning	0	0
3	Hybrid	0	0

No	Mode of Instruction	Contact Hours	Percentage
	• Traditional classroom • E-learning		
4	Distance learning	0	0

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	20
2.	**Laboratory/Studio**	0
3.	**Field**	0
4.	**Tutorial**	0
5.	**Others (specify)**	0
Total		20

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	Introduce and define the nature of demographics- Rates and ratios -Relative numbers- Ratios in population	K1	Lectures-Presentations. Media Lectures Tutorials	Exam Assessment Quiz Final Exam
1.2	statistics. -Analyze the population growth in terms of infant mortality rate, Birth rate by age, General fertility rate	K1	….	
...				
2.0	**Skills**			

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
2.1	Analyze different population 'statistics and parameters.	V1	Lectures-Presentations. Media Lectures Tutorials	Exam Assessment Quiz Final Exam
2.2	Use SPSS to compute different statistics values.	V1		
...				
3.0	**Values, autonomy, and responsibility**			
3.1	Interpret different population 'statistics and parameters.	S1	Lectures-Presentations. Media Lectures Tutorials	Exam Assessment Quiz Final Exam
3.2				
...				

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction- The nature of demographics	2
2.	Rates and ratios -Relative numbers- Ratios in population statistics	2
3	vital statistics rates-types of ratios-sex ratio	2
4	The proportion of women and children- area distributions- Population density	2
5	Population growth rate- Net birth and death rates	2
6	Death rate by age- infant mortality rate- Birth rate by age	2
8	General fertility rate- The total fertility rate- net reproduction rate	2
7	accuracy and error- life tables	2
9	Study the death rate- Fertility measurements- Population growth-	2
10	Migration and population distributions.	2
Total		

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quiz 1	4th Week	5%
2.	Assignment/Home Work	5th Week	5%
3.	Mid Term	6th Week	30%
4.	Quiz 2	9th Week	5%
5.	Class Activities/Discussions	10th Week	5%
6.	Electronic Test	10th Week	10%
7.	Final Exam	End of the semester	40%
8.	Total		100%

*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	Population: An Introduction to Concepts and Issues- John R. Weeks- Thomson Wadsworth- tenth edition.
Supportive References	population Handbook- Arthur Haupt and Thomas T. Kane- Population Reference Bureau Fourth edition-2000.
Electronic Materials	
Other Learning Materials	https://www.mathworks.com/learn/training/statistical-methods-in-matlab.html

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	1. The size of the room should be proportional to the number of students 2. Provide enough seats for students. 3. The number of students do not exceed on 30 in the classroom
Technology equipment (projector, smart board, software)	1. Mathematics Lab is equipped with a computer. 2. Provide overhead projectors and related items i.e smart Board, Wi-Fi, AV.

Items	Resources
	3. Updated Math Software i. e Mathematica, Matlab, Maple. etc
Other equipment (depending on the nature of the specialty)	

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students/ internal committee	Direct (Students evaluation electronically organized by Deanship of registration and admission)/ Verification of students' papers
Effectiveness of Students assessment	Staff members (Peer Reviewer)	Indirect (Frequent meetings consultation among the teaching staffs)
Quality of learning resources	Staff members (course coordinators)	Direct (Meeting between course coordinators and the tutors)
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	
REFERENCE NO.	
DATE	