

## B) Objectives

<p><b>1. Summary of the main learning outcomes for students enrolled in the course.</b></p> <ul style="list-style-type: none"><li>• Give students practical background on the use of statistical models in the field of population statistics.</li><li>• Understand and utilize the statistical measures for births and Deaths.</li><li>• Learn how to construct and use life tables.</li><li>• Understand internal and international migration.</li></ul>
<p><b>2. Briefly describe any plans for developing and improving the course that are being implemented. (eg increased use of IT or web based reference material, changes in content as a result of new research in the field)</b></p> <ul style="list-style-type: none"><li>• Using statistical packages in the data analysis.</li><li>• Updating books and the course web site periodically.</li></ul>

## C ) Course Description (Note: General description in the form to be used for the Bulletin or Handbook should be attached)

<b>1- Topics to be Covered</b>		
Topic	No of Weeks	Contact hours
Introduction to demography and demographic indicators.	1	4
Measures relating to population composition - Sex and Age ratios.	1	4
Measures relating to population distributions - Concentration ratios - Mean of population - Urban concentration	2	8
The importance of demographic measures – Ratios and Rates -Annual rate of growth in population using cumulative increments.	2	8
Basic fertility measures - Fertility concepts and measures - Crude birth rate - General fertility rate	2	8

Age-Specific fertility rate - Total fertility rate - Gross reproduction rate	2	8
Mortality statistics - Mortality measures - Death rates - Age-Specific mortality curve	2	8
Life tables - Risk concept	2	8
Migration - Types of migration - Measurements of migration	1	4

<b>2- Course components (total contact hours per semester):</b>			
Lecture: 60 hours	Tutorial:	Practical/Fieldwork/Internship: 15 hours	Other:

**3- Additional private study/learning hours expected for students per week. (This should be an average: for the semester not a specific requirement in each week): 45 hours**

**4- Development of Learning Outcomes in Domains of Learning For each of the domains of learning shown below indicate:**

- A brief summary of the knowledge or skill that the course was designed to develop.
- A description of the learning strategies to be used in the course to develop that knowledge or skills.
- The methods of student assessment used in the course to evaluate learning outcomes in the domain concerned.

**a. Knowledge**

**(i) Description of the knowledge to be acquired**

- 1-Describe the basic principles of demography and the need for it.
- 2-Explain the kinds of measurements derived from census data, how to be calculated and the relationships between them.
- 3- Explaining fertility and reproduction and methods of measuring various kinds of fertility.
- 4- Describing the construction and uses of life-tables in demography.
- 5- Migration and measures of migration.

<p><b>(ii) Teaching strategies to be used to develop that knowledge</b></p> <ul style="list-style-type: none"> <li>• Current topics are interrelated with past and future topics.</li> <li>• Using real-life data from real census whenever possible.</li> <li>• Discussing basic principles, statistical tests and applications with students.</li> </ul>
<p><b>(iii) Methods of assessment of knowledge acquired</b></p> <ul style="list-style-type: none"> <li>• In-class short exams, mid-term exams, and final exam.</li> <li>• Continuous homework assignments.</li> <li>• Writing statistical reports.</li> </ul>
<p><b>b. Cognitive Skills</b></p>
<p><b>(i) Cognitive skills to be developed</b></p> <ul style="list-style-type: none"> <li>• Demonstrate capability of choosing the appropriate statistical test for a particular application.</li> <li>• Formulate significant research questions, use statistical tests, and interpret the results.</li> <li>• Read, evaluate, and interpret numerical, statistical and general scientific information.</li> <li>• Search and use the statistical literature in both printed and electronic formats.</li> <li>• Work on different statistical techniques and decisions making.</li> <li>• Apply critical thinking and hypothesis necessary for scientific inquiry.</li> </ul>
<p><b>(ii) Teaching strategies to be used to develop these cognitive skills</b></p> <ul style="list-style-type: none"> <li>• Homework assignments on problem solving.</li> <li>• Statistical reports.</li> </ul>
<p><b>(iii) Methods of assessment of students cognitive skills</b></p> <ul style="list-style-type: none"> <li>• In-class quizzes.</li> <li>• Mid-term and final exams.</li> <li>• Statistical reports.</li> <li>• Performance in discussions during the computer lab sessions.</li> </ul>
<p><b>c. Interpersonal Skills and Responsibility</b></p>

<p><b>(i) Description of the interpersonal skills and capacity to carry responsibility to be developed</b></p> <ul style="list-style-type: none"> <li>• Work effectively both individually and in teams in both classroom and computer labs.</li> <li>• Demonstrate the ethics and regulations articulated by the university.</li> <li>• Understand the interrelationships between statistics, technology, and society in general.</li> </ul>
<p><b>(ii) Teaching strategies to be used to develop these skills and abilities</b></p> <ul style="list-style-type: none"> <li>• Working independently and in groups towards some case studies. Collecting literature reports, summarize, analyse and interpret findings.</li> <li>• Organize resources, time, and members of the group</li> <li>• Communicate results of work to other members of the group through written reports and oral presentations.</li> </ul>
<p><b>(iii) Methods of assessment of students interpersonal skills and capacity to carry responsibility</b></p> <ul style="list-style-type: none"> <li>• Individual performance within a group.</li> <li>• Written statistical reports.</li> <li>• Individual performance during discussions, and the ability to understand and communicate.</li> </ul>
<p><b>d. Communication, Information Technology and Numerical Skills</b></p>
<p><b>(i) Description of the skills to be developed in this domain.</b></p> <ul style="list-style-type: none"> <li>• Acquire a working knowledge of basic research methodologies, data analysis and interpreting results.</li> <li>• The ability to use computers for statistical tests, computations, and database construction and usage.</li> <li>• The ability to search and use the statistical literature in both printed and electronic formats.</li> </ul>
<p><b>(ii) Teaching strategies to be used to develop these skills</b></p> <ul style="list-style-type: none"> <li>• Homework assignments.</li> <li>• Usage of computer and different statistical packages for data processing and statistical tests in statistical reports.</li> </ul>

**(iii) Methods of assessment of students numerical and communication skills**

- Performance in solving problems assigned in homework.
- Evaluation of the proficiency in communication. And statistical treatment of data skills in statistical reports.

<b>5. Schedule of Assessment Tasks for Students During the Semester</b>			
Assessment	Assessment task (eg. essay, test, group project, examination etc.)	Week due	Proportion of Final Assessment
1	Class activities (in-class quizzes, homework)	Weekly	10%
3	First mid-term Exam	Week 7	20%
4	Second mid-term Exam	Week 12	20%
5	Final Exam	Week 16	50%

**D ) Student Support**

**1. Arrangements for availability of faculty for individual student consultations and academic advice. (include amount of time faculty are available each week)**

- Office hours ( 4 hours per week).

**E ) Learning Resources**

**1. Required Text(s)**

- Techniques of Population Analysis : G. W. Barclay

**2.** - Survival Models and Data Analysis By: R. C. Elandt-Johnson & N. L. Johnson ,1980, Wiley

**4- Electronic Materials, Web Sites etc**

Web site dedicated to the statistical tests available on the internet .

**5- Other learning material such as computer-based programs/CD, professional standards/regulations**

- Statistical packages

- Power point presentations and other handouts posted on the course web site.