College of Commerce
Division of Economic and Financial Studies
Department of Business

DEM356
Demographic Techniques

UNIT OUTLINE
SEMESTER 2, 2008

Lecture: Thursdays, 1-3 pm, E6A-133
Tutorial: Thursdays, 3-4 pm, .E8A-386
Tutorial: Thursdays, 4-5 pm, .E8A-386

Unit Convenor: Professor Farhat Yusuf

Prerequisites: DEM127 (P) and DEM255 (P) or DEM256 (P)
or
18 cp with a GPA of 1.5 or higher

Students in this unit should read this outline carefully at the start of semester. It contains important information. If anything in it is unclear, please consult the unit convenor.

ABOUT THIS UNIT

This unit will appeal to commerce and social science students, particularly those who are interested in the analysis and interpretation of quantitative data. The unit will focus on some of the more advanced demographic techniques including testing the accuracy of demographic data, curve fitting, the stable population model, multiple decrement tables, advanced standardisation techniques, medical demography and epidemiology. Students will get hands-on experience of analysing demographic data for Australia and some overseas countries. Apart from the ability to use a calculator some basic knowledge of Excel will be assumed.

The unit is worth 3 credit points.

TEACHING STAFF

Professor Farhat Yusuf is the unit convenor. Please feel free to contact him if you have any questions, or if there is any way in which he can assist you. Professor Yusuf will be available for consultation on Thursdays 10.00 am to 12.00 noon in his office located in building E4A, room 641. For other times please make an appointment by calling him on 9850-8565 or by sending him an e-mail on farhat.yusuf@efs.mq.edu.au.

CLASSES

The unit will involve attendance at a two hour lecture every week and a one hour tutorial. The lectures will be held on Thursday starting at 1.05 pm in E6A-133. Each student has been assigned to a tutorial group. Students will only be allowed to attend the tutorial to which they have been assigned. Tutorials will be held on Thursdays, 3-4 pm and 4-5 pm, in E8A-386. It is a requirement of the unit that students attend all lectures and tutorials. Attendance sheets will be circulated and it is the students' responsibility that they sign these sheets. Students are encouraged to contact Professor Yusuf if, due to any reason, they are unable to attend a lecture and/or a tutorial.

WORKLOAD

The relationship between workload and credit points, which, for a typical competent student, is 4 hours per credit point per week. Thus, you should plan to spend, on an average, 12 hours per week on the study of demographic techniques. This includes the time spent in lectures and tutorials as well as doing assignments, exercises and *independent study* of the relevant demographic topics. If you consistently spend less time than that stipulated above then you are probably not studying hard enough and/or do not understand fully the requirements of this unit.

REQUIRED AND RECOMMENDED TEXT AND MATERIALS

There is no prescribed textbook for this unit. Students will be referred to books and other material from time to time. Referred books will be available in the Special Reserve Section of the Library. Copies of other material will be provided in the class and/or made available on E-Reserve. It is highly recommended that students compile notes of their own based on the material covered in lectures and tutorials and from recommended readings.

It is assumed that students are familiar with the various demographic techniques taught in DEM127. To refresh their memory students may wish to consult the book *Demographic Techniques* by A.H. Pollard, Farhat Yusuf and G.N. Pollard (in particular chapters 1-3, 5, 6 and 8). This book is available in the Special Reserve Section of the Library.

LEARNING OBJECTIVES AND OUTCOMES

The main *objectives* of this unit include acquainting students with the concepts and assumptions underlying various advanced demographic techniques, and to provide them hands-on experience of analysing demographic data for Australia and other countries.

The main *outcomes* that students are expected to achieve from this unit include:

- ability to recognise the quality of demographic data;
- competence in the use of established population models and techniques;
- knowledge and understanding of demographic data for Australia and selected overseas countries.

In addition to the discipline based objectives, all academic programs at Macquarie University seek to develop students' generic skills in a range of areas. One of the aims of this unit is that students develop their skills in the following areas:

- critical analysis
- problem solving
- creative thinking
- communication

ASSESSMENT

Assessment of the student performance will be based on the following three components:

End-of-year-examination ………………………………….	60 %
Class test …….……………………………………………….	25 %
Three assignments ……………………………..................	15 %

Students must obtain a satisfactory pass in the end-of-year-examination, in class test and the three assignments. Students with an unsatisfactory attendance record will be excluded from the unit.

In the class test and the end-of-year examination students will be allowed to bring an A4 size sheet of paper with formulae and notes written on one or both sides of the paper. Students will not be allowed to bring dictionaries but calculators with scientific functions will be allowed.

The final grade which will be awarded to you will be within the range: high distinction (HD), distinction (D), credit (CR), pass (P), conceded pass (PC) or fail (F). For details please refer to the *Handbook of Undergraduate Studies 2008.*

Your final assessment for the unit will be within the grade scheme given above, and will indicate the standardised numerical grade (SNG) you have achieved. *Please note that the SNG is not simply a sum of your raw marks for the class work and examination, but will take into consideration other factors such as your participation in class discussions and attendance record.* **It is essential that a student must pass the end-of-year-examination**.

STUDENT SUPPORT SERVICES

Macquarie University provides a range of academic student support services. Details of these services can be accessed at http://www.student.mq.edu.au (any changes in this URL will be advised later).

EXAMINATIONS

The University Examination period in the Second Semester is from 19 November to 5 December 2008. You are expected to present yourself for examination at the time and place designated in the University Examination Timetable. The timetable will be available in draft form approximately eight weeks before the commencement of the examinations and in final form approximately four weeks before the commencement of the examinations.

The only exception to not sitting an examination at the designated time is because of documented illness or unavoidable disruption. In these circumstances you may wish to consider applying for Special Consideration. Information about unavoidable disruption and the special consideration process will be made available to you in due course. If a Supplementary Examination is granted as a result of the Special Consideration process the examination will be scheduled after the conclusion of the official examination period. You are advised that it is Macquarie University policy not to set early examinations for individuals or groups of students. All students are expected to ensure that they are available until the end of the teaching semester that is the final day of the official examination period.

UNIVERSITY POLICY ON GRADING

Academic Senate has a set of guidelines on the distribution of grades across the range from fail to high distinction. Your final result will include one of these grades plus a standardised numerical grade (SNG).

On occasion your raw mark for a unit (i.e., the total of your marks for each assessment item) may not be the same as the SNG which you receive. Under the Senate guidelines, results may be scaled to ensure that there is a degree of comparability across the university, so that units with the same past performances of their students should achieve similar results.

It is important that you realise that the policy does not require that a minimum number of students are to be failed in any unit. In fact it does something like the opposite, in requiring examiners to explain their actions if more than 20% of students fail in a unit.

The process of scaling does not change the order of marks among students. A student who receives a higher raw mark than another will also receive a higher final scaled mark.

For an explanation of the policy see the following websites:

http://www.mq.edu.au/senate/rules/Guidelines2003.doc
http://www.mq.edu.au/senate/rules/detailedguidelines.doc

PLAGIARISM

The University defines plagiarism in its rules: "Plagiarism involves using the work of another person and presenting it as one's own." Plagiarism is a serious breach of the University's rules and carries significant penalties. You must read the University's practices and procedures on plagiarism. This can be found in the *Handbook of Undergraduate Studies* or on the web at http://www.student.mq.edu.au/plagiarism/. The policies and procedures explain what plagiarism is, how to avoid it, the procedures that will be taken in cases of suspected plagiarism, and the penalties if you are found guilty. Penalties may include a deduction of marks, failure in the unit, and/or referral to the University Discipline Committee.

TEACHING/LEARNING STRATEGY

The unit will be taught through lectures and tutorials. Students will be given tutorial assignments and practice exercises.

Students must bring a calculator with scientific functions to all lectures and tutorials.

SCHEDULE OF LECTURES AND TUTORIALS

Week	Date	Lecture	Tutorial
1	7/8	Introduction. Revision of some of the basic demographic techniques.	No tutorial.
2	14/8	Testing the accuracy of demographic data – I.	Exercises on lecture topic.
3	21/8	Testing the accuracy of demographic data – II.	Exercises on lecture topic. Assignment 1 given.
4	28/8	Adjusting and smoothing of demographic data. Curve fitting – I.	Exercises on lecture topic. Assignment 1 due.

Week	Date	Lecture	Tutorial
5	4/9	Curve fitting – II.	Exercises on lecture topic. Assignment 2 given. Assignment 1 returned.
6	11/9	Multiple decrement tables.	Exercises on lecture topic. Assignment 2 due.
7	18/9	Advanced standardisation techniques including the component analysis.	Exercises on lecture topic. Assignment 2 returned. Assignment 3 given. **It will be due on 2/10/08.**
		MID SEMESTER BREAK.	
8	9/10	Stable population model – I.	Exercises on lecture topic. Assignment 3 returned.
9	16/10	Class test.	No tutorial.
10	23/10	Stable population model – II.	Exercises on lecture topic.
11	30/10	Medical demography and epidemiology – I.	Exercises on lecture topic.
12	6/11	Medical demography and epidemiology – II.	Exercises on lecture topic.
13	13/11	Revision and conclusion.	No tutorial.

CLASSROOM ETIQUETTE

All students are expected to arrive on time, certainly before five minutes past the hour, and not to leave until the class ends. If you have a recurring problem that makes you late, or forces you to leave early, please discuss your situation with Professor Yusuf. Students are expected to be quiet during lectures unless, of course, class participation is required. Mobile phones should be turned off during the lectures and tutorials and not simply set to "silent".

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