DEM 355
SOCIAL AND APPLIED DEMOGRAPHY

UNIT OUTLINE
SEMESTER 1, 2006

Lecture: Thursday, 1:00pm – 4:00pm, E7B-100

Unit Convenor: Dr. Fei Guo

Prerequisites: DEM 255(P) or DEM256 (P)

Students in this unit should read the Unit Outline carefully at the beginning of the semester. It contains important information about the unit. If anything in it is unclear, please consult the Unit Convenor.
About this unit

This unit will appeal particularly to commerce and other social science students. It focuses on the strategic implications of demographic trends for business and governments both in Australia and other countries. This unit will familiarise students with the determinants and consequences of population trends, and the applications of demography in the public and private sectors. While special emphasis will be placed on the study of contemporary Australian demography, the situation in other countries and the historical perspectives will also be considered. In addition to lectures, students will be asked to actively participate in class discussions and will also get opportunities to make presentations. Students will get hands-on experience of social and applied demographic research through the use of census and other data.

The unit is worth 3 credit points.

TEACHING STAFF

- **Teaching staff:** Professor Jo. M. Martins and invited lecturers
- **Contact details:** Tele: (02) 9973 3022
  E-mail: jmartins@tpg.com.au
- Consultation availability: Please feel free to contact Prof. Martins if you have any questions or if there is any way in which he can assist you. Since Professor Martins is not working full-time at Macquarie University, he will be available for consultation either immediately after the class or by appointment.

- **Unit Co-ordinator:** Dr. Fei Guo

CLASSES

The unit will involve attendance at two lectures and a tutorial every week on Thursdays from 1-4 pm in E7B-100. It is a requirement of the unit that students attend all lectures and tutorials. Students must contact the unit convenor if due to special circumstances they are unable to attend.

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 social and applied demography. This includes the time spent in lectures as well as doing assignments and independent study of 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 TEXTS AND/OR MATERIALS

The prescribed textbook for this unit is:

Lecture notes will provide additional material. They will be available to students in the Library E-Reserve. You will also be referred to other reading materials in the lectures and tutorials.

WEB PAGE

At this stage there is no web page for this unit.

LEARNING OBJECTIVES AND OUTCOMES

Some of the important learning objectives and outcomes include:

- ability to define and explain the differences in social and applied demography;
- knowledge of demographic concepts and basic techniques;
- ability to access demographic and other data for Australia and overseas countries using internet and other sources;
- understanding of the social and other determinants of fertility, mortality, migration and their consequences;
- knowledge of causes and consequences of phenomena such as demographic transition and ageing of populations;
- appreciation and understanding of the applications of demography in business and in the public sector.

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:

- Critical analysis skills
- Problem solving skills
- Creative thinking skills
- Communication skills
- Interpersonal skills.
Assessment of the student performance will be based on attendance at lectures and tutorials, participation in class discussions, research project, class test and the mid-year examination. Various components of the assessment are:

- Mid-year examination ............................................. 70 %
- Research project and four assignments ......................... 20 %
- Class test ......................................................... 10 %

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 2006 pages 43 and 44.

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, and that students must pass the mid-year-examination.

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 an 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 the 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 scale mark.


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.
EXAMINATIONS

The University Examination period in First Half Year 2006 is from 14 to 30 June.

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. http://www.timetables.mq.edu.au/exam.

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 is available at http://www.reg.mq.edu.au/Forms/APSCon.pdf.

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.

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 AND LEARNING STRATEGY

The unit will be taught through lectures and tutorials, assignments and a research project to be carried out by groups of students. Students are expected to read in advance for lectures and tutorials, participate in group work including preparation of assignment and project reports, presentation of findings and other related tasks as specified below.
## SCHEDULE OF LECTURES AND TUTORIALS

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture: 1.05-2.55 pm</th>
<th>Tutorial: 3.05-3.55 pm</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/3</td>
<td>Introduction.</td>
<td>Basic measures.</td>
</tr>
<tr>
<td>9/03</td>
<td>World's population and theories</td>
<td>Identification of group membership for research project and assignments.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research project given.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assignment 1 given.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Discussion on Topic 1.</td>
</tr>
<tr>
<td>16/3</td>
<td>World population and theories</td>
<td>Assignment 2 given.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Discussion on Topic 2.</td>
</tr>
<tr>
<td>23/3</td>
<td>Fertility.</td>
<td>Assignment 3 given.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Submission of Assignment 1.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Discussion on assignment 1.</td>
</tr>
<tr>
<td>30/3</td>
<td>Mortality and disease.</td>
<td>Assignment 4 given</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Submission of Assignment 2.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Discussion on assignment 2.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Discussion on assignment 3.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Discussion on assignment 4.</td>
</tr>
</tbody>
</table>

### MID-SEMESTER BREAK

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture: 1.05-2.55 pm</th>
<th>Tutorial: 3.05-3.55 pm</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/5</td>
<td>Consumer demographics.</td>
<td>Class test.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Submission of research project report.</td>
</tr>
<tr>
<td>11/5</td>
<td>Presentation and discussion of research project reports.</td>
<td>Presentation and discussion of research project reports.</td>
</tr>
<tr>
<td>18/5</td>
<td>Presentation and discussion of research project reports.</td>
<td>Presentation and discussion of research project reports.</td>
</tr>
</tbody>
</table>
| 25/5 | Status of women and its implications
(Guest lecturer: TBA) | Discussion on Topic 3. |
| 1/6  | Demographic implications in urban and regional planning, Demographic aspects of education planning (Guest lecturers: TBA) | |
| 8/6  | Revision and conclusion | |

JM – Prof. Jo. M. Martins
FURTHER INFORMATION

- Students should take hand-held calculators to tutorials in weeks 1 to 3.

- Readings for week 1:
  and Siegel, J.S. Applied Demography, pp1-5, HB849.4.S53 (both books in Special Reserve).

- Readings for weeks 2 and 3:
  Chapters 1 – 3 of Weeks, Population: An Introduction to Concepts and Issues.

- Readings for week 4:
  Chapter 5 of Weeks, Population: An Introduction to Concepts and Issues.

- Readings for week 5:
  Chapter 4 of Weeks, Population: An Introduction to Concepts and Issues.

- Readings for week 6:
  Chapter 7 of Weeks, Population: An Introduction to Concepts and Issues.

- Readings for week 7:
  Chapters 8, 9 and 11 of Weeks, Population: An Introduction to Concepts and Issues.

- Readings for week 8:
  Lecture Notes on Consumer Demographics.

Tutorial topics

Topic 1: Demographic concepts and measures of fertility and mortality.


Topic 2: Demographic concepts and measures of life expectancy.


Topic 3: Status of women.

Please obtain from the internet, newspapers, magazines or other sources any recent information on the status of women in Australia. This may cover aspects such as income, employment, domestic violence, superannuation, media etc. Please bring your notes for discussion in class.
Groups

The class will be divided into 5-6 groups. Each student will be assigned to a particular group. The membership of the groups will be decided in the second lecture on 9 March 2006.

It will be the responsibility of each group to complete the research project and four assignments. It will also be the responsibility of each group to decide how work would be organised and individual tasks assigned, including the completion of a report for each of the four assignments and the final project report. To facilitate work, the group may select a coordinator and a rapporteur. This may change for each assignment and the duration of the project. In any case, the groups should meet at least once weekly to decide on how the work would be organised, assign work to each individual, and review progress made towards the completion of each assignment and the project. A cover sheet will be provided for each assignment and the research project. Each group will indicate whether individual members of the group should be given the full mark, or only a proportion of the mark, depending on the group’s assessment of the effort made by the individual towards the completion of the group’s work. Late assignments will NOT be accepted.

Materials

At the second lecture on 9 March 2006, each group will be given a dataset. The dataset will contain information for a Local Government Area (LGA) in New South Wales and for the whole State. This dataset will contain:

- data on births and deaths and age-specific fertility and mortality rates

The above information will be provided on Excel worksheets.

Assignment 1 - Fertility

Using the indirect standardisation technique, each group is required to estimate the number of births that would occur in the LGA if the age-specific fertility rates of NSW would prevail and compare the result with the actual number of births in the LGA. Each group should also investigate possible reasons for the differences in fertility between the LGA and the State. For this purpose, each group should investigate contributing factors such as the differences between the State and the LGA in female age distributions, the proportion of females living in lone-parent households, the education of females and their employment. In addition, the detailed analytical requirements listed in the "Guidelines for the project report" should be met (these guidelines will be handed out on 9 March 2006).
Assignment 2 - Mortality

Using the indirect standardisation technique, each group is required to estimate the number of deaths that would occur in the LGA if the age-specific mortality rates of NSW would prevail and compare the result with the actual number of deaths in the LGA. For this purpose, each group should examine the differences between the State and the LGA in their age distributions. Further consideration may be given to the differences in socio-economic characteristics that may influence the difference in deaths, as it is known that people with lower income, education and occupational status tend to have higher death rates. In addition, the detailed analytical requirements listed in the “Guidelines for the project report” should be met.

Assignment 3 - Migration

Following the illustrative estimation of the net migration profile for NSW 1996-2001 in the dataset, each group should estimate the approximate net migration profiles for the LGA in the period and compare it with the State. It should comment on possible reasons for the net migration profile and differences between it and the State. Again, please also note the requirements in the “Guidelines for the project report”.

Assignment 4 – Ageing

Using the findings of previous assignments and analysis of the age profiles of the LGA and NSW, each group would comment on possible reasons for the observed differences in age-profiles. Yet again, note the requirements in the “Guidelines for the project report”.