Basic Demographic Methods/Measurement Techniques and Demographic Methods, 7.5 credits, Fall 2017

Syllabus

Instructors
Sven Drefahl (sven.drefahl@sociology.su.se)
Kathrin Morosow (kathrin.morosow@sociology.su.se)
Eleonora Mussino (eleonora.mussino@sociology.su.se)
Gunnar Andersson (gunnar.andersson@sociology.su.se)

Aims
Basic Demographic Methods (BDM), a course at advanced level, aims to develop students’ analytical and interpretative skills by familiarizing them with basic concepts and measures in demography. Students will use, present and interpret basic demographic methods, including the life table, standardization, and population forecasting. Such knowledge is essential for work with statistical materials on populations and will be useful for most quantitative social science. As the course is based on the idea of learning by doing, attendance is essential to attain the learning outcomes.

Organization
The course is provided at full-time basis over 4.5 weeks. Teaching and learning is conducted through lectures, seminars, lab and home exercises, and a final exam.

Learning outcomes

Upon the completion of the course, the student is expected to be able to:

In terms of knowledge and understanding:
  • Account for, interpret and discuss the validity of the following:
    o Simple ratios, probabilities and rates, crude and specific rates
    o Lexis diagram
    o Direct and indirect standardization
    o Cohort life table
    o Period life table
    o Reproduction rates, parity progression rates, life table applications of family dynamics
    o Life table application of migration
In terms of accomplishments and competence:

- Use, describe, present and compare the following:
  - Simple ratios, probabilities and rates, crude and specific rates
  - Lexis diagram
  - Direct and indirect standardization
  - Cohort life table
  - Period life table
  - Reproduction rates, parity progression rates, life table applications of family dynamics
  - Life table application of migration
  - Basic cohort-component population projection
  - Link theory and demographic methods that are appropriate for a specific demographic research question.

In terms of attitudes and values:

- Search for, compare and critically review demographic data relevant for a particular research question;
- Compare and evaluate basic methods used in research on demographic questions.
- Carry out work in a responsible way, including keeping realistic time schedules

Assessment and examination

The assessment consists of eight (home/lab) exercises and one exam. Meeting 11 on population projections and the final exam require obligatory attendance.

The eight exercises consist of using, describing, presenting, comparing, as well as accounting for, interpreting and discussing the validity of the following:

1) Simple ratios, probabilities and rates, crude and specific rates.
2) Lexis diagram
3) Direct and indirect standardization
4) Cohort life table
5) Period life table
6) Reproduction rates, Parity progression rates, life table applications of family dynamics
7) Life table application of migration
8) Basic cohort-component population projection (obligatory attendance)

All eight exercises need to be handed in for the fulfilment of the course. A passing score for each exercise is 3. Students who fail to pass an exercise have an opportunity to redo and resubmit the exercise within two weeks. A re-submitted exercise has a chance of being upgraded to 3. To achieve a “Pass” for this course, students are expected to receive a “Pass” in all eight exercises and the exam. The weight of exercises and the exam in the final assessment is 50% each.

<table>
<thead>
<tr>
<th>Score range</th>
<th>Ex 1</th>
<th>Ex 2</th>
<th>Ex 3</th>
<th>Ex 4</th>
<th>Ex 5</th>
<th>Ex 6</th>
<th>Ex 7</th>
<th>Ex 8</th>
<th>Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passing score</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Weight in final assessment: 50%
The student’s final achievement (based on their performance in the eight home/lab exercises and the exam) is graded to A=Excellent, B=Very good, C=Good, D=Satisfactory, E=Sufficient, Fx=Not sufficient, F=Fail.

Other information

Clean lay-out and clear, convincing and correct interpretations are necessary for a high grade in the exercises and the exam.

Students with a final grade of Fx or F are entitled to redo the examination as long as the course is provided in order to achieve grade E at least. A student with E is not entitled to another examination to raise his/her grade.

Students who received grade Fx or F on exams twice from the same examiner can request to be evaluated by another examiner. Such request should be sent to the Director of Studies.

Students can request to have examination according to this syllabus up to three semesters. Such request should be sent to the Director of Studies.

The next chance to redo the course will be the next time the course is offered (every autumn).
Literature list

Main literature

Santow, Gigi (1996). *Demographic Methodology II*. Stockholm University Demography Unit. (To be purchased at Akademibokhandeln).


Additional readings (Reference, not compulsory)


Additional readings on fertility analysis (Reference, not compulsory)


Additional readings on life-table estimation

Compulsory


Readings on population projections

Compulsory


Reference for Swedish-readers (Recommended but not compulsory)

**STOCKHOLM UNIVERSITY**  
Department of Sociology

**Schedule: Basic demographic methods, 7.5 ECTS-credits, Fall 2017**

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Date, Time, Room</th>
<th>Topic</th>
<th>Reading Compendium</th>
<th>Reading Course Book</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>09/28/17, Thursday 13-15 in D315</td>
<td>Introduction</td>
<td>BMETH1 Introduction, Concepts and Measures</td>
<td>Ch1 Population Change, Ch2 Population Growth and Decline</td>
</tr>
<tr>
<td>2</td>
<td>09/29/17, Friday 10-12 in B389</td>
<td>Basic Measures of Population Dynamics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>09/29/17, Friday 13-15 in B389</td>
<td>Basic Measures of Population Dynamics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>10/02/17, Monday 09-12 in B389</td>
<td>Lexis Diagram</td>
<td>BMETH2 Time as a central demographic variable</td>
<td>Ch3 Age-sex composition</td>
</tr>
<tr>
<td>3</td>
<td>10/02/17, Monday 13-16 in B389</td>
<td>Lexis Diagram</td>
<td>BMETH2 Time as a central demographic variable</td>
<td>Ch3 Age-sex composition</td>
</tr>
<tr>
<td>4</td>
<td>10/05/17, Thursday 09-12 in B389</td>
<td>Standardization</td>
<td>BMETH3 Standardization</td>
<td>Ch4 Comparing populations</td>
</tr>
<tr>
<td>4</td>
<td>10/05/17, Thursday 13-16 in B389</td>
<td>Standardization</td>
<td>BMETH3 Standardization</td>
<td>Ch4 Comparing populations</td>
</tr>
<tr>
<td>5</td>
<td>10/11/17, Wednesday 09-12 in B389</td>
<td>Life Tables 1</td>
<td>BMETH4 The cohort life table</td>
<td>Ch6 Mortality and health, Ch8 Life tables</td>
</tr>
<tr>
<td></td>
<td>Date</td>
<td>Time</td>
<td>Location</td>
<td>Topic</td>
</tr>
<tr>
<td>---</td>
<td>----------------</td>
<td>--------</td>
<td>-----------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>5</td>
<td>10/11/17</td>
<td>13-16</td>
<td>B389</td>
<td>Life Tables 1</td>
</tr>
<tr>
<td></td>
<td>Wednesday</td>
<td>in</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>10/12/17</td>
<td>09-12</td>
<td>B389</td>
<td>Life Tables 2</td>
</tr>
<tr>
<td></td>
<td>Thursday</td>
<td>in</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>10/12/17</td>
<td>13-16</td>
<td>B389</td>
<td>Life Tables 2</td>
</tr>
<tr>
<td></td>
<td>Thursday</td>
<td>in</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>10/17/17</td>
<td>10-12</td>
<td>E387</td>
<td>Measures of Fertility and</td>
</tr>
<tr>
<td></td>
<td>Tuesday</td>
<td>in</td>
<td></td>
<td>Family Dynamics 1</td>
</tr>
<tr>
<td>8</td>
<td>10/18/17</td>
<td>10-12</td>
<td>B389</td>
<td>Measures of Fertility and</td>
</tr>
<tr>
<td></td>
<td>Wednesday</td>
<td>in</td>
<td></td>
<td>Family Dynamics 2</td>
</tr>
<tr>
<td>8</td>
<td>10/18/17</td>
<td>13-15</td>
<td>B389</td>
<td>Measures of Fertility and</td>
</tr>
<tr>
<td></td>
<td>Wednesday</td>
<td>in</td>
<td></td>
<td>Family Dynamics 2</td>
</tr>
<tr>
<td>9</td>
<td>10/19/17</td>
<td>10-12</td>
<td>F487</td>
<td>Estimating Migration 1</td>
</tr>
<tr>
<td>10</td>
<td>10/20/17</td>
<td>10-12</td>
<td>B389</td>
<td>Estimating Migration 2</td>
</tr>
<tr>
<td>10</td>
<td>10/20/17</td>
<td>13-15</td>
<td>B389</td>
<td>Estimating Migration 2</td>
</tr>
<tr>
<td>11</td>
<td>10/24/17</td>
<td>13-16</td>
<td>B389</td>
<td>Projections 1</td>
</tr>
<tr>
<td>12</td>
<td>10/25/17</td>
<td>09-11</td>
<td>B389</td>
<td>Projections 2</td>
</tr>
<tr>
<td>13</td>
<td>10/27/17</td>
<td>10-13</td>
<td>B389 / B397</td>
<td>Examination</td>
</tr>
</tbody>
</table>