

**THE UNIVERSITY OF HONG KONG  
FACULTY OF BUSINESS AND ECONOMICS**

**ECON2225: Economics of Population Changes  
First Semester 2021-2022**

**GENERAL INFORMATION**

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Consultation times: TBA

Tutor: TBA

**Pre-requisites:**

This is an advanced course in Economics mainly for students with a Major in Economics and/or Finance.

While the minimum pre-requisites of the course are ECON1001/1210 Introductory microeconomics and ECON1002/1220 Introductory macroeconomics, it is *strongly recommended* that students take Intermediate Microeconomics (ECON2101/2210) and Intermediate Macroeconomics (ECON2102/2220) before taking this course.

Mathematics (e.g., calculus and dynamic optimization techniques) and Statistics will be used in the course when appropriate.

**COURSE DESCRIPTION**

Fertility rates in industrial countries decreased substantially in the last century, with total fertility rates in many countries dropped from 6 or 7 in 1900 to less than 2 (and below the replacement level) by 2000. At the same time, life expectancy more than doubled from 30 to 40 years in 1900 to close to 80 years by 2000. The speed of population changes in many East Asian societies was even more drastic. For example, total fertility rate in Singapore fell from 5.76 in 1960 to a strikingly low value of 1.26 in 2003. Why do population changes of such magnitude arise, and how do they affect individual behavior of households and firms, as well as the aggregate economy?

This course examines these demographic changes, their causes and consequences, and related policy issues. We first look at trends in world population and provide fundamental demographic concepts of mortality, fertility, immigration and age structure. We then discuss economic consequences of demographic changes, including demographic dividend, saving and retirement decisions, and human

capital accumulation. We also examine economic causes of population changes. Finally, we examine policy issues related to demographic changes, such as retirement pension and health care reform.

The students of this course have the opportunity to choose a related project (after consulting with the instructor), and conduct an in-depth study.

**COURSE OBJECTIVES**

1. To provide students with important facts about population changes and their economic importance.
2. To provide an analytical framework to understand economic causes and consequences of demographic changes.
3. To prepare students to understand the impact of population changes on individual behavior and on the aggregate economy, and to explore various possible public policy solutions.

**FACULTY LEARNING GOALS (FLGs)**

**FLG1:** Acquisition and internalization of knowledge of the program discipline

**FLG2:** Application and integration of knowledge

**FLG3:** Inculcating professionalism

**FLG4:** Developing global outlook

**FLG5:** Mastering communication skills

**FLG6:** Cultivating leadership

**COURSE LEARNING OUTCOMES**

Course Learning Outcomes	Faculty Learning Goals
<b>CLO1.</b> To apply microeconomic and macroeconomic concepts to analyze population issues, and to develop necessary analytical skills.	FLG 1, FLG 2, FLG 3
<b>CLO2.</b> To know important facts about demographic changes and their economic importance.	FLG 1, FLG 2
<b>CLO3.</b> To identify local and global issues related to population changes.	FLG 2, FLG 4, FLG 5
<b>CLO4.</b> To understand the problems faced by different governments because of population changes, and the pros and cons of various policy responses.	FLG 2, FLG 6

**COURSE TEACHING AND LEARNING ACTIVITIES**

Course Teaching and Learning Activities	Expected contact hour	Study Load (% of study)
T&L1. Lectures	36 hours	30%
T&L2. Tutorials	9 hours	7.5%
T&L3. Exercises	27 hours	22.5%

T&L4. Self Study	48 hours	40%
Total	120 hours	100%

Assessment Methods	Brief Description (Optional)	Weight	Aligned Course Learning Outcomes
A1. Exercises		15%	1, 2, 3, 4
A2. Term Test		35%	1, 2, 3, 4
A3. Project		50%	1, 2, 3, 4
	Total	100%	

### STANDARDS FOR ASSESSMENT

Course Grade Descriptors	
A+, A, A-	Strong evidence of superb ability to fulfill the intended learning outcomes of the course at all levels of learning: describe, apply, evaluate, and synthesize
B+, B, B-	Strong evidence of the ability to fulfill the intended learning outcomes of the course at all levels of learning: describe, apply, evaluate, and synthesize
C+, C, C-	Evidence of adequate ability to fulfill the intended learning outcomes of the course at low levels of learning such as describe and apply but not at high levels of learning such as to evaluate and synthesis
D+, D	Evidence of basic familiarity with the subject
F	Little evidence of basic familiarity with the subject

### Assessment Rubrics for Each Assessment

Performance Level	Assessment Rubrics for the Exercises and Term Test
	Each of the Exercises and Term Test involves mainly Short-Answer Questions.
Outstanding A+, A, A-	For all or almost all of the questions, the student: (a) provides correct answer(s), and (b) analyzes in a clear and logical manner.
Proficient	For most of the questions, the student:

B+, B, B-	(a) provides correct answer(s), and (b) analyzes in a clear and logical manner.
Competent C+, C, C-	For a reasonable proportion of the questions, the student: (a) provides correct answer(s), and (b) analyzes in a clear and logical manner.
Adequate D	For a few of the questions, the student: (a) provides correct answer(s), and (b) analyzes in a clear and logical manner.
Failure F	For all or almost all of the questions, the student cannot: (a) provide correct answer(s), and (b) analyze in a clear and logical manner.

Performance Level	Assessment Rubrics for the Project
Outstanding A+, A, A-	The student: (a) clearly identifies the main problem based on familiarity of the literature and/or real-world issues, and (b) provides critical analyses of the issues in a coherent framework.
Proficient B+, B, B-	The student: (a) identifies the main problem based on familiarity of the literature and/or real-world issues, and (b) provides critical analyses of the issues.
Competent C+, C, C-	The student: (a) demonstrates some familiarity of the literature and/or real-world issues in identifying the main problem, and (b) provides competent analyses of the issues.
Adequate D	The student: (a) demonstrates a little familiarity of the literature and/or real-world issues in identifying the main problem, and (b) provides some reasonable analyses of the issues.
Failure F	The student: (a) does not clearly identify the main problem, and (b) provides poor analyses of the issues.

## Course Outline

### A. Introduction: World Population Trends and Fundamental Demographic Concepts

- Population Aging and its Economic Impact: Some Motivating Examples
- Trends in the World Population:
  - (1) Age Structure
  - (2) Individual Components: Mortality, Fertility, and Immigration
  - (3) Demographic Transition
- Math. Review

### B. Economic Consequences of Demographic Changes

- Changes in Dependence Ratios (First Demographic Dividend)
- Labor Supply and Retirement Decisions
- Education Decisions
- Saving and Capital Accumulation
- Technological Progress \*

### C. Economic Causes of Population Changes

- Fertility Changes
- Mortality Changes
- Immigration \*

### D. Related Policy Issues

- Retirement Pension
- Health Care \*
- Economic Growth \*

\* Topics may be added or subtracted as time allows.

## Course Schedule

The following should be viewed as indicative only.

<b>Topic</b>	<b>Schedule</b>
Introduction	Weeks 1-2
Economic Consequences of Demographic Changes	Weeks 2-7
Economic Causes of Population Changes	Weeks 8-10
Related Policy Issues	Weeks 11-12

**REQUIRED/RECOMMENDED READINGS & ONLINE MATERIALS** (e.g. journals, textbooks, website addresses etc.)

There is no textbook for this course. We will mainly use research papers as well as relevant chapters of various books. Detailed lists on each topic will be given in class.

**MEANS/PROCESSES FOR STUDENT FEEDBACK ON COURSE**

- conducting mid-term survey in addition to SETL around the end of the semester
- Online response via Moodle site
- Others: \_\_\_\_\_ (please specify)

**COURSE POLICY** (e.g. plagiarism, academic honesty, attendance, etc.)

**Term Test**

There will be no make-up for the term test. If you do not attend any test, you will automatically get zero mark for the test. However, if there is a legitimate medical reason that you miss the test, you will need to inform the teacher or the teaching assistant and provide medical certificate **within 72 hours** of the test. In such case, the weight of the term test will be allocated to that of the Project.

**Late Exercises**

No exercises handed in late will be accepted.

**Academic Conduct**

The University Regulations on academic dishonesty will be strictly enforced! Please check the University Statement on plagiarism on the web: <http://www.hku.hk/plagiarism/>

Academic dishonesty is behavior in which a deliberately fraudulent misrepresentation is employed in an attempt to gain undeserved intellectual credit, either for oneself or for another. It includes, but is not necessarily limited to, the following types of cases:

a. Plagiarism - The representation of someone else's ideas as if they are one's own. Where the arguments, data, designs, etc., of someone else are being used in a paper, report, oral presentation, or similar academic project, this fact must be made explicitly clear by citing the appropriate references. The references must fully indicate the extent to which any parts of the project are not one's own work. Paraphrasing of someone else's ideas is still using someone else's ideas, and must be acknowledged.

b. Unauthorized Collaboration on Out-of-Class Projects - The representation of work as solely one's own when in fact it is the result of a joint effort. Where a candidate for a degree or other award uses the work of another person or persons without due acknowledgement:

- (1) The relevant Board of Examiners may impose a penalty in relation to the seriousness of the offence;
- (2) The relevant Board of Examiners may report the candidate to the Senate, where there is prima facie evidence of an intention to deceive and where sanctions beyond those in (1) might be invoked.

**ADDITIONAL COURSE INFORMATION** (e.g. e-learning platforms & materials, penalty for late assignments, etc.)