

The Hong Kong University of Science and Technology

UG Course Syllabus

Population Health (Spring 2026)

SOSC 3400

3 Credits

Pre-requisites: None

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Course Description

The increases in human life span represent a major achievement of humanity and constitutes one of the most significant social changes across societies worldwide. However, inequalities in health and longevity across different social domains persist and sometimes widen. Focusing on how social factors are linked to health and longevity, this course draws on research in sociology, demography, economics, public health, geography, and other fields. Part I covers macro trends of health and longevity, and key concepts and methods that help understand population-level patterns of health and health disparities. Part II covers substantive topics including how factors such as income, education, race, gender, migration, family dynamics, and large-scale social disruptions affect health outcomes throughout the life course. Through real-world examples and case studies, students will develop skills to analyze the complex relationships between social conditions and population health.

Intended Learning Outcomes (ILOs)

By the end of this course, students should be able to:

1. Describe key concepts and patterns in population health and health disparities
2. Apply theoretical frameworks (e.g., demographic and epidemiological transitions, fundamental cause theory, life course perspectives, weathering hypothesis) to explain health trends and disparities
3. Identify and describe how social stratification by education, income, immigration background, race, and gender generates and maintains health inequalities
4. Explain the role of social relationships including marital dissolution, social network effects, and geographic and community contexts in shaping health
5. Synthesize evidence across multiple disciplines to critically evaluate contemporary health challenges and identify policy strategies

Lecture Schedule

The schedule is subject to change at the instructor's discretion to best meet the learning needs.

Date	Lecture Topic
Tue, 3 Feb	Overview
	Part I: Macro Population Health Patterns
Thu, 5 Feb	What is Mortality: Measures and Data Sources
Tue, 10 Feb	Demographic and Health Transitions
Thu, 12 Feb	Life Expectancy
Tue, 17 Feb	<i>No class - Chinese New Year</i>
Thu, 19 Feb	<i>No class - Chinese New Year</i>
Tue, 24 Feb	Is There a Limit to Human Lifespan?
Thu, 26 Feb	Age Patterns of Mortality
Tue, 3 Mar	Sex Differences in Health
Thu, 5 Mar	Inequality and Disparities
Tue, 10 Mar	Exam 1
	Part II: Special Topics
Thu, 12 Mar	Partner's Influence (Yifan Shen)
Tue, 17 Mar	Marriage, Divorce, and Widowhood
Thu, 19 Mar	Theoretical Frameworks
Tue, 24 Mar	Educational Disparities
Thu, 26 Mar	Income Inequality
Tue, 31 Mar	Early Life Family Conditions (Martin Kolk)
Thu, 2 Apr	Large-scale Shocks: Wars, Epidemics, Famines, etc.
Tue, 7 Apr	<i>No class - Mid-term break</i>
Thu, 9 Apr	Exam 2
Tue, 14 Apr	Interpersonal Violence (Hanbo Wu)
Thu, 16 Apr	Migration and Spatial Inequalities
Tue, 21 Apr	Discrimination: Racism, Sexism, and Weathering
Thu, 23 Apr	Social Network and Health Behaviours
Tue, 28 Apr	Occupation, Job Loss, and Retirement
Thu, 30 Apr	Group Presentations 1
Tue, 5 May	Group Presentations 2
Thu, 7 May	Exam 3

Assessment and Grading

This course will be assessed using criterion-referencing and grades will not be assigned using a curve. Detailed rubrics for each assignment are provided below, outlining the criteria used for evaluation.

Assessments:

Assessment Task	Contribution to Overall Course grade (%)	Due date
Attendance	10%	/
Weekly Memo	15%	12:00 noon on each lecture day
Exams	20% x 3	10 March, 9 April, & 7 May *
Group Presentation	15%	30 April & 5 May *

* Assessment marks for individual assessed tasks will be released within two weeks of the due date.

Mapping of Course ILOs to Assessment Tasks

Assessed Task	Mapped ILOs	Explanation
Attendance	IL01-5	Attendance and active participation in class allows students to engage with course concepts in real-time, apply theoretical frameworks to contemporary issues, and critically evaluate evidence presented by peers and instructors.
Weekly Memo	IL01-2	Weekly memos engage students in critical reflection on course readings. Students demonstrate comprehension of key concepts and patterns, apply theoretical frameworks to interpret findings, analyze mechanisms of health stratification, evaluate the role of social contexts, and synthesize multidisciplinary evidence. This regular practice develops analytical thinking and strengthens students' ability to connect theoretical perspectives with empirical research in population health.
Group Presentation	IL01-5	Group presentations require students to collaboratively investigate a specific health disparity topic, synthesizing evidence from multiple disciplines. Students will demonstrate their ability to apply theoretical frameworks, identify mechanisms of social stratification, explain the role of social contexts, and critically evaluate policy responses to their chosen health challenge. This assessment develops both analytical and communication skills.
Exams	IL01-5	The exams assess students' foundational understanding of key concepts, patterns, and theoretical frameworks covered in the course. Students will demonstrate their ability to describe health trends and apply major theories to explain observed population health patterns.

Grading Rubrics

Attendance: Students are allowed 2 absences without penalty or documentation required. Additional absences result in a 2% deduction each (maximum 10%) unless excused with official documentation (medical certificate, university-approved leave). Documentation should be submitted within two weeks of the absence when possible. In cases of extended illness or emergency, students should contact the instructor to discuss alternative arrangements.

Weekly Memo: Students are required to submit short reading memos (up to 300 words) based on each week's required reading material. Reading materials will be posted on Canvas one week prior to the lecture. Memos should reflect on the readings and may address questions such as: How did this week's reading change your existing views? What did you not agree with? How do you relate the readings to the real world around you? What part of the readings did you not understand?

Students earn 1% of their overall course grade for each memo submitted on time, up to a maximum of 15%. Memos are due by noon on each lecture day. *Late submissions will not be accepted and will not receive credit.* Students who submit 15 memos will receive the full 15%; students who submit 14 memos will receive 14%, and so on.

Detailed instructions and rubrics for the **Exams**, and **Group Presentations** will be provided. These rubrics clearly outline the criteria used for evaluation. Students can refer to these rubrics to understand how their work will be assessed. These rubrics, along with very clear instructions on the performance and content of the exams will be made available on Canvas.

Final Grade Descriptors:

Grades	Short Description	Elaboration on subject grading description
A	Excellent Performance	Demonstrates a comprehensive grasp of subject matter, expertise in problem-solving, and significant creativity in thinking. Exhibits a high capacity for scholarship and collaboration, going beyond core requirements to achieve learning goals.
B	Good Performance	Shows good knowledge and understanding of the main subject matter, competence in problem-solving, and the ability to analyze and evaluate issues. Displays high motivation to learn and the ability to work effectively with others.
C	Satisfactory Performance	Possesses adequate knowledge of core subject matter, competence in dealing with familiar problems, and some capacity for analysis and critical thinking. Shows persistence and effort to achieve broadly defined learning goals.
D	Marginal Pass	Has threshold knowledge of core subject matter, potential to achieve key professional skills, and the ability to make basic judgments. Benefits from the course and has the potential to develop in the discipline.
F	Fail	Demonstrates insufficient understanding of the subject matter and lacks the necessary problem-solving skills. Shows limited ability to think critically or analytically and exhibits minimal effort towards achieving learning goals. Does not meet the threshold requirements for professional practice or development in the discipline.

Course AI Policy

The exams will be performed under strict exam conditions. However, students may use AI (in tandem with other tools) to help prepare them for the exams.

For the in-class activities and group presentations, students are welcome to use generative AI to support their learning in preparing for the presentation. However, students should understand that generative AI tools should only be used as *tools* and should NOT be a substitute for students' own work.

Communication and Feedback

Assessment marks for individual assessed tasks will be communicated via Canvas within two weeks of submission. Feedback on assignments will include comments and suggestions for further improvement. Students who have further questions about the feedback, including scores, should consult the Instructor OR Teaching Assistant within five working days after the feedback is received.

Resubmission Policy

Students who are unable to submit any of the assessed tasks should contact the Instructor or Teaching Assistant **within five working days** after the respective deadlines to discuss arrangements for resubmission.

Required Texts and Materials

There are no textbooks required for this course. Required and recommended reading materials will be available on Canvas one week prior to the lecture date.

Academic Integrity

Students are expected to adhere to the university's academic integrity policy. Students are expected to uphold HKUST's Academic Honor Code and to maintain the highest standards of academic integrity. The University has zero tolerance of academic misconduct. Please refer to [Academic Integrity | HKUST – Academic Registry](#) for the University's definition of plagiarism and ways to avoid cheating and plagiarism.