

**SOCY 146: “Introduction to Population Health”**  
**Professor Alicia Riley**  
**Summer Session 1, June 26 – July 28, 2023**  
**(Asynchronous Online)**



## **COURSE DESCRIPTION**

The COVID-19 pandemic has highlighted the importance of the study of population health for understanding our world, responding to new challenges, and planning for a sustainable future. Population health is an interdisciplinary field with foundations in demography, sociology, epidemiology, and economics. It offers theoretical insights and methodological tools for responding to questions such as: Why do poorer people live sicker, shorter lives? How much do our experiences in early life matter for our health in later life? How do we measure progress in population health? What drives differences in average life expectancy between neighborhoods or nations? By zooming out to consider variation between populations, we shift our focus from individual choices and behaviors to the macro-level forces that influence our lives.

The course will introduce students to concepts and theories central to the study of population health. As we move through the major questions that drive current population health research, students will have opportunities to practice interpreting trends from reports or visualizations, translating big-picture concepts into measurable variables, and working with real world data. We will also discuss the limitations of current research on population health, including open-questions, controversies, and limiting assumptions. Student learning will be evaluated through discussion posts, quizzes, data interpretation assignments, a handbook of key concepts, and a take-home, open-note final exam.

## **INSTRUCTOR INFORMATION AND COMMUNICATIONS**

Alicia Riley, PhD MPH MA  
Assistant Professor of Sociology and Core Faculty in Global and Community Health  
Department of Sociology  
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## **LEARNING OUTCOMES**

By the end of the course, students will be able to:

1. Apply population-level thinking about health, data, and the causes of disease.
2. Define key population health concepts (e.g., life expectancy, birth cohort, critical period) and theories (e.g., Fundamental Cause Theory, The Epidemiologic Transition, Early Origins Hypothesis)
3. Make an evidence-based observation or argument about population health by carefully interpreting the information provided in a figure or table.
4. Brainstorm options for operationalizing real-world concepts related to population health into variables that could be studied with existing data.
5. Critique traditional approaches to population health research and identify the consequences of common blindspots and assumptions.

## PREREQUISITES/COREQUISITES

This is an upper division course geared toward students with Sophomore, Junior, or Senior standing.

## REQUIRED MATERIALS, TEXTBOOKS AND TECHNOLOGY

No purchases required. All readings will be made available on Canvas or through the UCSC library as an electronic resource unless otherwise noted. It is critical that you do the readings and watch lectures before doing the quiz for that week.

The primary textbook for the course is Hummer and Hamilton's *Population Health in America* (2020), which is available as an ebook through the UCSC library. You will be required to have access to an internet-connected personal computer. The data assignments will require that you use are able to download data files to your computer. The infographic assignment will be easier if you have access to a tool for making visualizations, anything similar to Canva, Powerpoint or Keynote will do.

In addition to Canvas, we will be using **Slack** to facilitate community and teamwork in this asynchronous course. **IMPORTANT: To prepare for our first week --> 1) Please download the Slack desktop app to your computer; 2) Please create an account using your @ucsc.edu email address and join our course Slack site: <https://join.slack.com/t/socy146summer2023/signup>; 3) Once you've joined our Course Slack site, please introduce yourself in the introductions channel. Please do these 3 things by Monday, June 26th.**

Note: Please plan to access Slack mainly through your computer (not through your phone, though there is a mobile app). I recommend downloading the Slack desktop app to your Mac/PC. For Windows, [click here](#). For Mac, [download Slack from the Apple Store](#). If you have any trouble with these steps, please email me: [alicia.riley@ucsc.edu](mailto:alicia.riley@ucsc.edu) and put SOCY 146: "your issue" in the subject line.

## ASSIGNMENTS & ASSESSMENT

Grades will be based on:

Participation (Discussion posts, video and Slack engagement, smaller deliverables)	15%
Personal Handbook of Key Concepts	10%

Quizzes (3, 5% each)	15%
Data Interpretation Assignment (3 parts, each 10%)	30%
Infographic Assignment	10%
Final Exam	20%

**Participation in Canvas Discussion Forums, Video Engagement, and Teamwork (15%):**

Your participation grade will come from engaging with video lectures, responding to required Canvas discussion prompts about the readings, lectures, or assignments (~10), and engaging on Slack or through small deliverables.

**Personal Handbook of Key Concepts (10%):** Students will be given a list of 20 key concepts and terms that will be covered over the quarter. Students will create a Google Doc that they will add to with a formal definition of the concept (paste from lecture or readings), a clear explanation of the concept in their own words which may include a drawing/figure, and an applied example. There should be a 1/2 page of content for each concept (depending on complexity).

**Quizzes (15%):** There will be **3 short quizzes** over the quarter with questions on key concepts and data interpretation skills covered in the readings and lecture from that week. Quizzes will be made available at the start of Weeks 1, 2, and 3. You may use your Personal Handbook to complete them. Quizzes are due by 11:59 pm on the Sunday of the week they are posted (7/2, 7/9, and 7/16).

**Data Interpretation Assignment (30%):** There will be a data interpretation assignment divided into three components due over the course designed to simulate real-world population health research. The Practice Assignment and Part I will be completed independently. Part II is a team-based assignment in which each team member has a role. Students will share their initial assignment components from Part I, then work asynchronously with their team, according to their role, to combine them into a team report. Students will collaborate using two online tools: Google Docs and Slack. More information will be provided. Students will practice data interpretation and population health writing in the **Data Interpretation Practice (DUE Wed, 7/5)** and hypothesis testing and data analysis and interpretation in **Data Interpretation Assignment Part I Individual Component (DUE Wed, 7/12)** and **Part II Team Component (DUE Wed, 7/19)**. More information will be provided.

**Infographic Assignment (10%):** Students will choose one of 3 published population health papers and will transform the information contained in the article into an accessible, engaging infographic (using any digital tools e.g., Canva, Powerpoint or Keynote, or by hand) designed for the target population of their choosing. DUE Wed, 7/26.

**Final Exam (20%):** The Final Exam will be a cumulative open-note, online exam with a combination of multiple choice and short answer questions. Questions will be similar to those on the weekly quizzes, but material from the entire course will be covered. You should use the personal handbook you created to complete the final exam. The exam will be posted on June 24th at 8 am and due by Friday, 7/28 at 11:59 pm.

**STUDENT HOURS FOR CLASS**

For this 5-unit, 5-week summer course, students should expect to spend 6 hours watching lecture content each week, 1.5 hours attending the synchronous class meeting (or watching the recording)

to digest lecture material and connect with class members, 2 hours reading and responding in Canvas discussion forums and on Slack, 12 hours on reading, and 8.5 hours on studying for quizzes/exam and completing homework each week. If you find that you are spending more time than this on the readings or assignments (including meeting with team members), please come talk to me.

## **SYNCHRONOUS MEETINGS – “Digest Sessions”**

Each week on Fridays, this asynchronous course will have a live digest session designed to stimulate further engagement with video lecture content, answer student questions, and facilitate progress in teamwork around the Data Interpretation Assignment.

**For Summer 2023, digest sessions will be held synchronously through Zoom, Fridays 1-2 pm, with no requirement that students attend (as the sessions will be recorded),** but with the opportunity for students to join as a live audience and participate in the digest process. Digest sessions build on the popular Reddit “Ask Me Anything” approach. Students will be required to post a question/comment during the week before Friday. The instructor will start by responding to the most productive comments and questions and try to get through as many as possible in the time allotted. Students will also be encouraged to ask follow-up questions and share comments live. As we digest the various questions and topics together, the instructor will intersperse live demos, conversation about lecture content, assignment review, and, later in the term, we reserve some time for breakout room meetings to facilitate progress on team assignments.

## **INSTRUCTOR FEEDBACK**

At the transition of each week, the instructor will host a live digest session responding to student discussion posts from the previous week and providing verbal feedback on student progress with assignments. Over the course, the instructor or the TA may provide real-time comments on student Personal Handbooks and assignments via Google Docs and Discussion Forums via Canvas. The instructor or the TA will grade your personal handbook of key concepts quizzes and final exam, and provide comments on your data interpretation assignment components and your infographic assignment. [Please click here to learn how to access my comments in Canvas.](#)

## **STUDENT FEEDBACK**

Your experiences in this class are important to me. At the end of the course you will be asked to complete a Student Experience of Teaching survey for this course. SETs provide an opportunity for you to give valuable feedback on your learning that is honest and constructive. This anonymous feedback will help me consider modifications to the course that will help future students learn more effectively.

## **COURSE SCHEDULE**

<b>Week</b>	<b>Video lecture topics and corresponding readings</b>
1	<ul style="list-style-type: none"> <li>• Orientation to Course Plan and Tools for Online Learning (Video 0)</li> </ul>
1	<ul style="list-style-type: none"> <li>• What is a population? What is population health? (Video 1)</li> <li>• Defining Population Health - Commonly Used Measures (Video 2)</li> </ul> <p><b>A)</b> Hummer and Hamilton (2019) Chapter 1. pp. 1-19.</p>

	<p><b>B)</b> McFalls, Joseph A., Jr. (2007). "Population: A Lively Introduction." Population Bulletin. <a href="#">Link</a> or <a href="#">PDF Download PDF</a> *<i>The whole thing is useful but for a nice foundation, focus on reading pp. 9-11 and 17-21.</i></p> <p>Key concepts resource 1: Kindig, D. A. (2007). Understanding population health terminology.</p>
1	<ul style="list-style-type: none"> <li>• Defining Population Health – Sources of Data (Video 3)</li> <li>• Measuring Population Health – Key Concepts Review (Video 4)</li> <li>• How do populations change? How does population health change? (Video 5)</li> <li>• Measuring Population Health – Life Expectancy (Video 6)</li> </ul> <p><b>C)</b> Johnson, Steven. (2022) Extra Life. Chapter 2.  <b>D)</b> Johnson, Steven. (2022) Extra Life. Chapter 3.  <b>E)</b> How to read a research article infographic  <b>F)</b> Scientific method for population health research infographic</p> <p>Key concepts resource 2: PRB's Population Health Handbook 6th Edition  Key concepts resource 3: Kille, LW. (2015). Statistical terms used in research studies.</p>
1	Live Digest Session, June 30 <sup>th</sup> , 1- 2:30 pm or watch recording
1	<b>DUE: Join course Slack site and introduce yourself; Watch video lectures 0-6; Respond to two required discussion posts on Canvas; Complete concepts 1-7 of Personal Handbook; Take Quiz 1 by 7/2</b>
2	<ul style="list-style-type: none"> <li>• The Demographic Transition (Video 7)</li> <li>• Data Interpretation Assignment Walkthrough (Video 8)</li> <li>• Visualizing Population Health - Which graph when? (Video 9)</li> </ul> <p><b>A)</b> Grover, Drew. What is the Demographic Transition? Population Education Blog.</p>
2	<ul style="list-style-type: none"> <li>• Historical Trends in U.S. Population Health (Video 10)</li> </ul> <p><b>B)</b> Hummer and Hamilton (2019) Chapter 2.</p>
2	<ul style="list-style-type: none"> <li>• The Epidemiologic Transition (Video 11)</li> </ul> <p><b>C)</b> Rebecca Onion, "The Long History of the Hand- Washing Gender Gap," Slate. February 15, 2020.</p>
2	<ul style="list-style-type: none"> <li>• The Socioeconomic Gradient in Health (Video 12)</li> </ul> <p><b>D)</b> Hummer and Hamilton (2019) Chapter 4.  <b>E)</b> Hummer and Hamilton (2019) Chapter 5.</p>
2	<ul style="list-style-type: none"> <li>• Turning Concepts into Variables – Part 1 (Video 13)</li> <li>• Turning Concepts into Variables – Part 2 (Video 14)</li> <li>• Tools for Collaborative Population Health Research (Video 15)</li> </ul>
2	Live Digest Session, July 7 <sup>th</sup> , 1- 2pm or watch recording

2	<b>DUE: Watch video lectures 7-15; Respond to two required discussion posts on Canvas; Complete concepts 8-13 of Personal Handbook; Data Interpretation Practice Assignment by 7/5; Quiz 2 by 7/9</b>
3	<ul style="list-style-type: none"> <li>• Causes of health, causes of death, causes of inequality (Video 16)</li> <li>• Excerpt from <i>Cooked</i> Documentary (Video 17)</li> </ul> <p><b>A)</b> Watch: John Oliver, "Last Week Tonight—Death Investigations." May 20, 2019. <a href="https://www.youtube.com/watch?v=hnoMsftQP8">https://www.youtube.com/watch?v=hnoMsftQP8</a></p> <p><b>B)</b> Phelan and Link. 2013. Excerpt from "Fundamental Cause Theory" in <i>Medical Sociology on the Move</i>, pp. 105-107</p> <p><b>C)</b> Bailey, Zinzi D., Justin M. Feldman, and Mary T. Bassett. "How structural racism works—racist policies as a root cause of US racial health inequities." (2021): 768-773.</p>
3	<ul style="list-style-type: none"> <li>• Working with data in R (Video 18)</li> <li>• <del>Visualizing Population Health—R Studio (Video 19)</del></li> </ul> <p><b>D)</b> Data Science: A First Introduction, Chapters 1,2 and 4.</p>
3	<ul style="list-style-type: none"> <li>• The Lifecourse Perspective (Video 20)</li> </ul> <p><del><b>E)</b> Elder, Glen, Jr. 1983. "The Life-Course Perspective." Pp. 54-60</del></p>
3	<ul style="list-style-type: none"> <li>• U.S. Population Health in International Context (Video 21)</li> </ul> <p><b>F)</b> Hummer and Hamilton (2019) Chapter 3.</p>
3	Live Digest Session, July 14 <sup>th</sup> , 1- 2 pm or watch recording
3	<b>DUE: Watch video lectures 16-21; Respond to two required discussion posts on Canvas; Complete concepts 14-17 of Personal Handbook; Data Interpretation Assignment Part 1 by 7/12; Quiz 3 by 7/9</b>
4	<ul style="list-style-type: none"> <li>• Recent Trends in Population Health in the U.S. (Deaths of Despair) (Video 22)</li> </ul> <p><b>A)</b> Case, Anne, and Angus Deaton. 2015. "Rising Morbidity and Mortality in Midlife among White Non-Hispanic Americans in the 21st Century."</p> <p><b>B)</b> Friedman, Hansen, and Gone. 2023. "Deaths of Despair and Indigenous data genocide"</p>
4	<ul style="list-style-type: none"> <li>• Im/migrant Health (Video 23)</li> <li>• More on paradoxes and crossovers (Video 24)</li> </ul> <p><b>C)</b> Hummer and Hamilton (2019) Chapter 6.</p>
4	<ul style="list-style-type: none"> <li>• Policy changes health (Video 25)</li> <li>• Translation - What makes a good infographic (Video 26)</li> </ul> <p><b>D)</b> Hummer and Hamilton (2019) Chapter 8.</p>
4	Live Digest Session - Review for Final Exam, July 21 <sup>st</sup> , 1- 2pm or watch recording

4	<b>DUE: Watch video lectures 22-26; Respond to two required discussion posts on Canvas; Complete Data Interpretation Assignment Part 2 as a team by 7/19; Complete concepts 18-20 of Personal Handbook and turn in full handbook at a PDF by 7/23.</b>
5	<ul style="list-style-type: none"> <li>Climate changes health (Video 27)</li> <li>Watch: <i>This Changes Everything</i> (documentary)</li> </ul> <p><b>A)</b> Alexandra L. Phelan. "The Environment, a Changing Climate, and Planetary Health"</p> <p><b>B)</b> Alicia R Riley. (2022) "Redefining the Quest for Health Equity in the Era of Climate Crisis" <a href="#">Link</a></p>
5	<ul style="list-style-type: none"> <li>Insights on global population health and the work yet to be done (Video 28)</li> </ul> <p><b>C)</b> Matthew Sparke (2020) Neoliberal regime change and the remaking of global health: from rollback disinvestment to rollout reinvestment and reterritorialization</p> <p><b>D)</b> Adams, V. (2016) Metrics: What Counts in Global Health, Ch. 1 and Epilogue</p>
5	<ul style="list-style-type: none"> <li>Careers in Population Health (Video 29)</li> </ul> <p><b>E)</b> Galea, Sandro. (2021) A better science for better decision-making in future crises.</p>
5	Live Digest Session – Course Wrap Up, July 28 <sup>th</sup> , 1- 2pm or watch recording
5	<b>DUE: Watch video lectures 27-29 plus documentary; Respond to two required discussion posts on Canvas; Complete Infographic Assignment by 7/26</b>
Final	Online, open-note FINAL EXAM posted 7/24 8 am and DUE 7/28 by 11:59 pm

## FINAL EXAM DATE AND TIME

The Final Exam will be a cumulative open-note, online exam with a combination of multiple choice and short answer questions. It will be made available to students on Monday, July 24<sup>th</sup> at 8:00 am and will be due on Canvas on July 28<sup>th</sup> by 11:59 pm.

## ACADEMIC INTEGRITY

All members of the UCSC community benefit from an environment of trust, honesty, fairness, respect, and responsibility. You are expected to present your own work and acknowledge the work of others in order to preserve the integrity of scholarship.

Academic integrity includes:

- Following exam rules
- Using only permitted materials during an exam
- Keeping what you know about an exam to yourself
- Incorporating proper citation of all sources of information
- Submitting your own original work

Academic misconduct includes, but is not limited to, the following:

- Disclosing exam content during or after you have taken an exam

- Accessing exam materials without permission
- Copying/purchasing any material from another student, or from another source, that is submitted for grading as your own
- Plagiarism, including use of Internet material without proper citation
- Submitting your own work in one class that was completed for another class (self-plagiarism) without prior permission from the instructor.

For the full policy and disciplinary procedures on academic dishonesty, students and instructors should refer to the [Academic Misconduct page](#) at the [Division of Undergraduate Education](#).

## **ACCESSIBILITY**

We all learn differently. If there are aspects of this course that prevent you from learning or exclude you, please let me know as soon as possible by email. Together we can develop strategies to meet both your needs and the requirements of the course. If you are a student who requires accommodations to achieve equal access in this course, please submit your Accommodation Authorization Letter from the Disability Resource Center (DRC) to me privately during my office hours or by email, preferably within the first two weeks of the term. I encourage all students who may benefit from learning more about DRC services to contact the DRC by phone at 831-459-2089 or by email at [drc@ucsc.edu](mailto:drc@ucsc.edu).

## **INTELLECTUAL PROPERTY**

The materials in this course are the intellectual property of their creators. As a student, you have access to many of the materials in the course for the purpose of learning, engaging with your peers in the course, completing assignments, and so on. You have a moral and legal obligation to respect the rights of others by only using course materials for purposes associated with the course. For instance, you are not permitted to share, upload, stream, sell, republish, share the login information for, or otherwise disseminate any of the course materials, such as: video and audio files, assignment prompts, slides, notes, syllabus, simulations, datasets, discussion threads. Conversely, any materials created solely by you (for example, your videos, essays, images, audio files, annotations, notes) are your intellectual property and you may use them as you wish.

## **PRINCIPLES OF COMMUNITY**

The University of California, Santa Cruz expressly prohibits students from engaging in conduct constituting unlawful discrimination, harassment or bias... [More here](#). I am committed to providing an atmosphere for learning that respects diversity and supports inclusivity. We need to work together to build this community of learning. I ask all members of this class to:

- be open to and interested in the views of others
- consider the possibility that your views may change over the course of the term
- be aware that this course asks you to reconsider some “common sense” notions you may hold
- honor the unique life experiences of your colleagues
- appreciate the opportunity that we have to learn from each other
- listen to each other’s opinions and communicate in a respectful manner
- keep confidential discussions that the community has of a personal (or professional) nature
- ground your comments in the texts we are studying. Refer frequently to the texts and make them the focus of your questions, comments, and arguments. This is the single most effective way to ensure respectful discussion and to create a space where we are all learning together.



## **STUDENT SERVICES**

### [Counseling and Psychological Services](#)

Many students at UCSC face personal challenges or have psychological needs that may interfere with their academic progress, social development, or emotional wellbeing. The university offers a variety of confidential services to help you through difficult times, including individual and group counseling, crisis intervention, consultations, online chats, and mental health screenings. These services are provided by staff who welcome all students and embrace a philosophy respectful of clients' cultural and religious backgrounds, and sensitive to differences in race, ability, gender identity and sexual orientation.

### [Student Success and Engagement Hub](#)

The Division of Student Success provides campus-wide coordination and leadership for student success programs and activities across departments, divisions, the colleges, and administrative units.

### [Tutoring](#) and Learning Support

At Learning Support Services (LSS), undergraduate students build a strong foundation for success and cultivate a sense of belonging in our Community of Learners. LSS partners with faculty and staff to advance educational equity by designing inclusive learning environments in Modified Supplemental Instruction, Small Group Tutoring, and Writing Support. When students fully engage in our programs, they gain transformative experiences that empower them at the university and beyond.

### [Slug Support Program](#)

College can be a challenging time for students and during times of stress it is not always easy to find the help you need. Slug Support can give help with everything from basic needs (housing, food, or financial insecurity) to getting the technology you need during remote instruction.

To get started with SLUG Support, please contact the [Dean of Students](#) Office at 831-459-4446 or you may send us an email at [deanofstudents@ucsc.edu](mailto:deanofstudents@ucsc.edu).

## **ACKNOWLEDGEMENTS**

This course benefitted from the teaching expertise of many colleagues. I would like to thank Erin Hamilton, Aresha Martinez-Cardoso, Elizabeth Wrigley-Field, Alexis Santos, Rebecca London, Juan Pedroza, Andrew Stokes, Megan McNamara, and Robert Hummer for sharing their own syllabi with me as models which I drew from in creating this course. I would also like to thank Jessie Dubreuil and Sarah Frost for amazing instructional design support and Vernon Legakis for video editing.