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| <p>Course Name: HLTH 323/3.0</p> <p>Epidemiology</p> | <p>Course Instructor: Dr. Eun-Young Lee</p> | <p>Contact Hours: Lectures: 1 x 1.5 hrs / 12 weeks</p> | | | | | | | |
| | | <p>Prerequisite: (KNPE 251/3.0 or STAT_Options) and HLTH 252/3.0.</p> <p>Level 3 or above in a HLTH or KINE plan. Limited spaces are available to students in the LISC(H) and BCHM(H) Plans level 3 or above.</p> | | | | | | | |
| | | <p>Exclusion: May not be taken with or after EPID 301/3.0.</p> | | | | | | | |
| <p>Course Description:</p> <p>The course offers epidemiological ways of understanding threats to population health. Such threats may include the history of colonialism, inequitable access to public goods, healthcare, education, housing, clean water, etc., wealth gaps, and intrapersonal, interpersonal, institutional, and systemic mechanisms that organize the distribution of power and resources differentially across lines of race, gender, class, sexual orientation, gender expression, and other dimensions of individual and group identity.</p> <p>The course covers basic epidemiology principles, concepts, and procedures useful in the surveillance and investigation of people's health: methods involved in researching the distribution and determinants of health in populations, core measurement issues (e.g., rates, standardization, association), interpretation issues (e.g., bias, confounding, interaction), and epidemiological approaches to study design including descriptive, observational (cross-sectional, cohort, case-control), and experimental (randomized controlled trials, community trials). The course also introduces learners to critical epidemiology and population health research while exploring the ways to investigate structural and fundamental determinants of health using epidemiologic methods.</p> | | <p>Course Notes:</p> <p><i>(Note: All required readings and course notes will be available on onQ)</i></p> <ol style="list-style-type: none"> 1. Celentano D, Szkol M. Gordis Epidemiology (6th ed). Elsevier Inc, 2019 2. Krieger N. Epidemiology and the people's health: theory and context. Oxford University Press, 2011 3. Oleckno WA. Essential Epidemiology: Principles and Applications. Waveland Press, 2002 4. Webb P, Bain C, Page A. Essential epidemiology: An introduction for students and health professionals (4th ed), Cambridge University Press, 2020 5. Research articles available on onQ | | | | | | | |
| <p>Learning Outcomes:</p> <ul style="list-style-type: none"> • Describe the principles and history of epidemiology research to appraise the field of epidemiology • Quantify rates and measures used in epidemiology and public health to assess their meaning and practice standard calculations • Assess different study designs used in epidemiology research and critique scientific articles to determine | <p>Course Evaluation:</p> <p>In-Class Pop Quizzes BONUS marks: up to 2% added to final grade</p> <table border="0"> <tr> <td>Assignment #1</td> <td>5%</td> </tr> <tr> <td>Assignment #2</td> <td>10%</td> </tr> <tr> <td>Assignment #3</td> <td>10%</td> </tr> <tr> <td>Assignment #4</td> <td>15%</td> </tr> </table> | Assignment #1 | 5% | Assignment #2 | 10% | Assignment #3 | 10% | Assignment #4 | 15% |
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| Assignment #4 | 15% | | | | | | | | |

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| <p>strengths and weaknesses of existing studies, identify gaps in the literature and reiterate important study findings.</p> <ul style="list-style-type: none"> • Recognize applications of epidemiology research to describe how epidemiology research is used to influence health policy and practice • Practice effective communication techniques to show your ability to enhance others understanding of a topic area • Act in a manner consistent with academic integrity and professional practice to display scholastic and professional competence • Generate novel research questions and develop a research plan in the field of epidemiology to demonstrate knowledge and understanding of literature, epidemiological principles, epidemiology research methods, written communication skills, and ability to work in a team environment | <p>Assignment #5 15%</p> <p>Assignment #6 10%</p> <p>Assignment #7 10%</p> <p>Assignment #8 15%</p> <p>Assignment #9 10%</p> |
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Course Outline

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| Course Overview/Introduction to Epidemiology | RRs and ORs - Margarita |
| Basic Epidemiological Principles | Ecological/Cross-sectional Studies |
| Finding an Epidemiologic Study (Literature Searches) | Critical Appraisal - Carson |
| Epidemiologic Study Designs | Case-control/Cohort Studies |
| Biostatistics 101 (Download SPSS) | Critical Appraisal |
| Association & Causation | Experimental Studies |
| Determining Causality | Critical Appraisal |
| Bias & Confounding | Systematic Reviews |
| Reducing Bias & Confounding | Critical Appraisal |
| Rates & Measures | Knowledge Translation |