

Chronic Disease Epidemiology PH 748 – Syllabus
Spring Semester 2007: Jan 8 – May 7
Seminar: Mondays 10:00-12:50 am
Location: Biomedical Sciences Building, D107
Credit hours: 3

Instructor: Andrew Grandinetti, Ph.D.
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Office hours: I will be in available in my office from 1-3 pm on Mondays and Tuesdays, and 1-5 pm on Wednesdays 1-3 pm. Other meeting times are available by appointment if necessary.

Text: No required text. Journal articles will be distributed at least one week prior to the relevant seminar session. The articles will be distributed by e-mail in PDF format whenever possible.

Course Description: The course will cover selected topics in chronic disease with an emphasis on disease occurrence in Hawaii and the current status of local research projects. The first half of each class session will generally be in a lecture format, followed by discussion. Discussion will focus on the lecture material and/or the assigned journal article(s).

Learning Objectives: On completion of this course, the student will: 1. understand the principles underlying the epidemiological study of chronic disease; 2, appreciate the methodological difficulties inherent in epidemiological studies of chronic diseases; 3. become familiar with the distribution and impact of the major chronic diseases; 4. develop basic skills for critical analysis of journal articles and grant writing.

Course Policies:

- Class papers/projects must be received **when due** to receive full credit.
- Students must attend class (see grading policy below). Participation in class discussions is encouraged and may be considered for bonus points in borderline cases.
- Plagiarism will result in a failing (“F”) grade for the assignment. Students should familiarize themselves with the university of Hawai‘i Student Conduct Code.
- No extra credit assignments given, however bonus point questions may be included in quizzes.
- Final grades are based on completed assignments, class attendance, and participation. All assignments must be completed for a passing grade.

- Appropriate citations and references are expected.

Description of Course Assignments: A total of one half of the grade will be determined by several exercises leading to a final paper in the format of grant proposal. The first related assignment is a mini-proposal in which each student will be expected to identify a chronic disease related public health problem, discuss the literature related to the occurrence of the disease, its risk factors, and its public health importance, and formulate a testable hypothesis regarding this problem. A ten minute oral presentation summarizing the literature and hypothesis will be given by each student at the mid-term.

A final proposal, due near the end of the semester, will expand on this earlier paper to include a methods and materials section which will describe the approach the student has chosen to test the proposal hypothesis. The paper must propose a study design, a rationale for choosing that design, and include a thorough discussion of the strengths and weaknesses of the design. The proposal must also include a statistical plan, and a description of the methods of measuring study outcomes, risk factors and potential confounding variables, and identify potential measurement errors. The student must also include a section on ethical use of human subjects, and is required to complete the NIH online certification on human subjects.

Each student will be assigned at least one journal publication during the semester and must prepare a written critique of this paper and must lead a discussion on the paper in class.

Class requirements	Points
Class attendance (10 or more sessions, full credit; 7-9 half credit; less than 7 sessions 0 credit)	25
Quizzes (5 quizzes each worth 5% of final grade)	25
Mid-term paper (Literature review and hypothesis) 3-5 pages in length – double spaced	15
Presentation	10
NIH-style Proposal Narrative (Abstract, Specific Aims, Background and Significance, Methods and Materials) 15 pages maximum – double spaced	15
Written review and discussion of journal publication	10
Total possible points	100

Grading Scale: This class will NOT be using the “plus/minus” grading system.

The grading scheme is as follows:

- A – 90 points or greater
- B – 80-89 points
- C – 70-79 points
- D – 65-69 points
- F – < 65 points

Specialization Competencies Addressed

- Identify the epidemiological dimensions of the major causes of morbidity and mortality regionally, nationally and internationally with particular emphasis on chronic and infectious diseases.
- Apply appropriate statistical tests for parametric and non-parametric settings and identify advanced statistical methods for analyzing both nominal and continuous data, for both univariate and multivariate applications.
- Demonstrate skills in the conduct of epidemiologic research:
 - a. Critically assess epidemiologic data and literature.
 - b. Write an epidemiologic research proposal.
 - c. Evaluate, interpret and discuss research results in the format required for an epidemiologic research report.

MPH Competencies Addressed

Analytic Skills

- Define a public health problem.
- Determine appropriate use of data and statistical methods.
- Collect and summarize data relevant to an issue.
- Evaluate the quality and comparability of data and identify gaps in data sources.
- Describe how the data illuminate ethical, political, scientific, economic, and overall public health issues.
- Identify research designs used in public health, including advantages and flaws of specific designs, and determine designs appropriate to specific needs.

Communication Skills

- Communicate effectively to professional and lay audiences both in writing and orally (unless a disability precludes oral communication).

Tentative Schedule of Lectures

January 8 Introduction, Course requirements, Definitions and Review

January 15 Martin Luther King Jr. Day

January 22 Epi Review

January 29 Epi Review (if needed) and/or Grandinetti - Diabetes

Quiz 1

February 05 Bill Dendle on the IRB process

February 12 Kamal Masaki, MD – Alzheimer's Disease

February 19 Presidents' Day

February 26 Dominic C. Chow, MD, MPH - HIV associated CVD

Quiz 2

March 5 Grant writing skills and NIH video

Quiz 3

March 12 Grandinetti – Parkinson's Disease

March 19 Gertraud Maskarinec, MD, PhD - Cancer

Mid-term paper due (literature review and proposed study hypothesis only, 3-5 pages double spaced)

March 26 Kuhio Day (26-30 Spring Recess)

April 02 Grandinetti – Heart Disease
Quiz 4

April 09 David Kurahara, MD – Juvenile rheumatoid arthritis

April 16 Jimmy Efird, PhD – Brain Tumors

Quiz 5

April 23 Liz Tam, MD – Asthma and Pulmonary Disease

Final proposals due

April 30 Student presentations (10 minutes each)

May 07 Examination Period (no final examination)

Written proposal reviews due