

HEA 350: Principles of Epidemiology

University of Maine at Farmington
Department of Community Health and Recreation

Syllabus, Fall 2008

Instructor: Dr. Maurice “Bud” Martin, Ph.D., M,Ed, CHES

Contact: Phone: 778-7181, Email: maurice.martin@maine.edu.

Catalog Course Description and Prerequisites:

This course is an introduction to the history and methods of epidemiology, with examples from U.S. and international disease outbreaks as well as injury and prevention data. Students will follow ongoing disease investigations as well as independently collect and analyze data, using software in the public domain. Students will refine skills in research, technical writing, and the use of information technology. Prerequisite(s): MAT 120, HEA 123. Every semester.

Credit: 4

Course objectives: Follows the national health education credentialing organizations Certified Health Education Specialists responsibilities and competencies expected of an entry level community health educator.

Area I. Assess Individual and Community Needs for Health Education

Objective 1: Student conducts health-related needs assessments.

Objective 2: Student implements appropriate measures to assess capacity for improving health status.

Area IV: Conduct Evaluation and Research Related to Health Education

Objective 3: Student evaluates data-gathering instruments and processes.

Objective 4: Student develops valid and reliable evaluation instruments.

Objective 5: Student develops appropriate data-gathering instruments.

Objective 6: Student analyzes evaluation data.

Objective 7: Student analyzes research data.

Objective 8: Student compares evaluation results to other findings.

Objective 9: Student reports effectiveness of programs in achieving proposed objectives.

Area VI: Serve as a Health Education Resource Person

Expected Outcomes:

Upon completion of this course, each student will:

- Apply knowledge of the dynamics of disease prevention.
- Demonstrate proficiency with measurement in disease occurrence.
- Assess the Validity and Reliability of diagnostic and screening test.
- Explain the natural history of disease: Rates.
- Assess the efficiency of prevention measurement; Study designs, RT, Cohort, Case control, Cross sectional.

- Demonstrate the application of estimating risk, associations.
- Compare study designs.
- Know when to derive inferences from epi studies.
- Reflect on Bias, confounding, and interactions.
- Identify the roles of genetics and environmental factors in disease causation.
- Use epi to evaluate health services.
- Use an epidemiological approach to evaluate health screening programs.
- Describe the relationship between epidemiology and public policy.
- Comment on the ethics of epi and studies involving humans.

Students should expect and plan to spend 10 -14 hours a week in study, reading, researching, and writing **outside of class**. Coming to class is important but won't be sufficient to pas the course.

Equal Education Opportunity is offered to students with disabilities. Please notify the instructor if a reasonable accommodation is needed to meet course requirements.

Texts and Resources

Miller, Richard E., 2007, *Epidemiology for Health Promotion and Disease Prevention Professionals*. Hawthorn Press, NY. ISBN (7890 – 1599 – 4) *** this book will be available at the book store by Sept, 15th***

On-line Course: Preparedness and Community Response to Pandemics.
<http://www.ualbanycphp.org/learning/registration/tab.cfm?course=pandemics&s=Overview>

Maine Department of Human Services. (2002). Healthy Maine 2010: Longer and healthier lives. Available at <http://www.state.me.us/dhs/boh/healthyme2k/hm2010a.htm>

Excite: http://www.cdc.gov/excite/classroom/intro_epi.htm

**** For the first three classes you will find that, *An Introduction to Community Health*, (Hea 123 text) will be helpful. Testimony that you should NEVER sell you books :) ****

Course Requirements and Grading (allocation of final grade for each assignment)

Requirements	Points
Attendance, participation	100
Homework	200
Presentation	100
Quizzes (N=4)	100
Midterm one take home.	100

A > 560 B 520 – 559 C 480 – 519 D 440 – 479 F < 440

Attendance and participation: Attendance and participation will be essential parts of your grade. You'll do better if you know what's going on – trust me!!!

Homework: You will be asked to do a series of short data collections and manipulations as well as a few professional development activities.

Quizzes: There will be four quizzes. They will be worth about 25 pts each.

Test: There will be one midterm exam.

Presentation: There will be a couple presentations at intervals together with a final presentation in which will reflect your professionalism.