

**Mississippi State University
College of Agriculture and Life Sciences
Department of Food Science, Nutrition, and Health Promotion**

**Principles of Epidemiology
and Health Science Research**

**FNH 8563
3 Credit Hours
Course Syllabus**

General Information

Instructor:	Michael Hall, PhD
Class Location:	Distance Learning
Phone:	(662)325-0401
Email:	meh264@msstate.edu

Credit

3 Hours

Course Description

This course is designed to assist students to develop the skills to interpret epidemiological research. Emphasis will be placed on interpretation of basic measures of death and disease along with evaluation of various study designs commonly used in the field of epidemiology.

Conceptual Framework

Health promotion is a field that is very focused on data collection and its interpretation. Many current health promotion programs are based on addressing disease trends and various health disparities in existence that are data driven. Throughout the course students are provided knowledge and skills necessary to design scientifically sound research strategies and to interpret those findings.

Course Objectives

By the end of the course students are expected to be able to:

1. Define the content, uses and significance of epidemiology as a means of public health investigation
2. Describe epidemiological approaches to defining and measuring health problems in defined populations
3. Describe the strengths and limitations of epidemiological study designs
4. Explain the contributions of epidemiological approaches to disease prevention, health promotion and health policy
5. Describe the role of epidemiological approaches in evaluating the effectiveness and efficiency of health care and preventive health services
6. Identify methods for describing disease rates and other vital statistics

7. Describe methods for critical analysis of the results of epidemiological research
8. Identify and evaluate methods for performing epidemiological research

Suggested Course Materials

Miller, R.E. Epidemiology for Health Promotion and Disease Prevention Professionals (2002) The Hawthorn Press. **ISBN: 0789015994**

Suggested Supplemental Course Materials

Friis, R.H. and Sellers, T.A. Epidemiology for Public Health Practice, 3rd Edition (2004) Jones and Bartlett Publishers, Inc. **ISBN: 0763731706**

Class Participation/Discussion – participation and discussions are evaluated based on weekly entries in the discussion forum within WebCT. The instructor introduces weekly topics.

Assignments

(25 pts each X 8 assignments) – The assignments are used to allow the student to demonstrate that they can synthesize research articles into terms of validity, reliability, rationale, and critical analysis of objectives. The students will be given selected readings for in depth critiquing. The last four assignments relate to the study design project of the face to face format. The students locate four studies from the literature and use the studies as a framework to design their own research project. The studies come from each of the four study designs: ecological, cross-sectional, case-control, and cohort. Each of the study designs is submitted in a 3-5 page paper using APA style for references. This format differs from the face to face project to allow for feedback from the instructor that would otherwise come from a classroom setting.

Course Requirements/Evaluation

Class Participation/Discussion	25 points
Assignments (25 pts each X 8 assignments)	200 points
Midterm Exam	100 points
Final Exam	<u>125 points</u>
Total	450 points

Grading Scale

Final Grade will be based upon 450 points.

A = 405 +

B = 404-360

C = 359-315

D = 314-270

F = 270 and below

Honor Code

Mississippi State University has an approved Honor Code that applies to all students. The code is as follows:

"As a Mississippi State University student I will conduct myself with honor and integrity at all times. I will not lie, cheat, or steal, nor will I accept the actions of those who do."

Upon accepting admission to Mississippi State University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor Code. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the MSU community from the requirements or the processes of the Honor Code. For additional information please visit:

<http://www.msstate.edu/dept/audit/1207A.html>

Exams

All exams including the final must be taken during the assigned times. Test dates are not negotiable unless you have an approved documented excuse. Exams will be drawn from lectures, class activities, and readings. The exams will consist of short answer, and objective (multiple choice, true/false, and matching) items. Review sheets will be provided for all exams. All exams will be given via MyCourses and will be timed. **Please do not use your notes or textbook.**