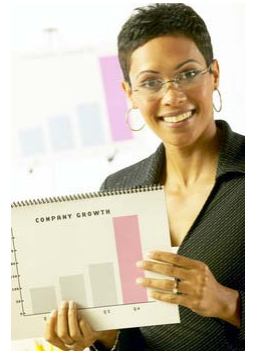


# Epidemiology

## HSC 6506

### Spring 2011

**Professor:** Delores. James, Ph.D., R.D., L.D., FASHA  
**Meets:** Tuesdays, Periods 9-11 periods (4:05-7:05)  
**Room:** FLG 265  
**Office Hours:** T 10:45-noon R 9:30-12:00  
**Office/Phone:** Room 10 FLG, 392-0583, ext 1276  
**Email:** [djames@hhp.ufl.edu](mailto:djames@hhp.ufl.edu)



## COURSE OVERVIEW

Epidemiology is one of the basic disciplines of public health. One of the tasks of epidemiology is to unravel the risk factors of disease at the population level. The course will teach how to evaluate relationships between potential risk factors and health outcomes and how causal relationships are interpreted for public health decision making. This course will also provide a comprehensive understanding of sources of population data in terms of morbidity, mortality, and other vital statistics. Scientific methods for approaching population data and identifying public health problems and empirical analysis of data will be emphasized.

This course is being taught as a hybrid course. Hybrid courses are designed to give the student an integrated and flexible learning environment using a combination of traditional on-campus lectures, outside learning activities (alone and with a group), and the use of the Internet. You get the best of both worlds—flexibility with your time and the sense of being in a group with the traditional class meeting. You will still have a regular schedule of assignments and reading material. You will have to learn to manage your time effectively and not procrastinate. Students are expected to own a computer and be proficient in several softwares, including Microsoft Office Professional Suite (Word, Excel, PowerPoint, Publisher). They are also expected to have access to and know how to use a digital camera and camcorder.

## COURSE OBJECTIVES

The course covers application of epidemiologic procedures to the understanding of the occurrence and control of conditions such as infections and chronic diseases.

Upon completion of this course, each student should possess the following areas of subject mastery:

1. Epidemiology as a tool for assessing potential causal associations, health needs of a population, delivery of services, program planning, and social policy.
2. Assessment of the validity and reliability of such data collection mechanisms as death certificates, patient charts, agency records, and personal surveys.
3. Measurements of mortality and morbidity (rates, ratios, and adjusted rates) and the major sources of error in measurement of disease.
4. Descriptive epidemiology: the amount and distribution of disease within a population by person, place, and time.
5. Research designs such as retrospective (case-control), prospective (cohort), historical prospective, cross-sectional, and experimental (clinical and community trials).
6. Evaluation of screening programs in the detection of disease; terminology of screening including determinants of sensitivity and specificity.
7. Population dynamics and health with respect to the stages in demographic transition and trends in the U.S. and world populations.
8. Epidemiologic aspects of infectious disease (variations in severity of illness, components of the infectious disease process, mechanism of disease transmission, and common source versus propagated).
9. Epidemiologic aspects of chronic disease (multi-factorial nature of etiology, long latency period, indefinite onset, and differential effect of factors on incidence and course of disease).

## TEXTS

1. Friis, R.H. & Sellers, T.A. (2009). Epidemiology for Public Health Practice, 4<sup>th</sup> ed. Jones and Bartlett.
2. Additional readings may be assigned.

## ELEARNING IN SAKAI

Online course information is available on the Sakai eLearning system at <http://lss.at.ufl.edu/>. You must have a Gatorlink account to log on. All exams are taken online. **All course correspondence (email, discussion postings, assignments, etc.) must be done in eLearning.** Announcements and class updates are placed online regularly so please check the site a few times a week. To use the system, please make sure to:

- Disable pop-up blockers. Elearning takes advantage of pop-up windows to deliver content and your exams.
- Make sure that the Java system on your computer is from Sun Microsystems. Vista does not use Java from Microsoft. Without Java, certain tools in Vista will not function correctly. You can do a check on your Java status from the main page under "Elearning Resources."
- Have Adobe Acrobat Reader installed.

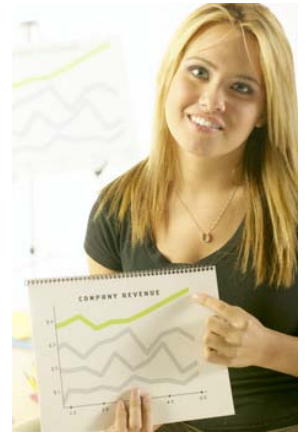
## CLASS POLICIES

- No eating or drinking in the classrooms.
- Turn off cell phones. Texting and making or receiving calls is not acceptable behavior in class. Students who do these activities will be considered disruptive and may be asked to leave after a warning is ignored.
- Since students often use their laptops to surf the Internet during class time, laptop use for any reason is not allowed during lectures. The course packet has detailed notes and you can supplement those with hand-written notes. Laptop use will be considered disruptive and the student may be asked to leave after a warning is ignored. **Continual disruption may result in points taken off of your total score. The amount deducted will be at the instructor's discretion**
- Students will be responsible for all assigned readings and course materials in the syllabus as well as any readings added afterwards. If you are absent, ask a classmate about missed information and materials. It is not the instructor's responsibility to update you on these.
- Attendance at all lectures is expected.
- Class lectures are the property of the professor and may not be taped without prior permission from the professor and may not be used for any commercial purpose.
- **Assignments are due at the end of the class period, not the end of the day.** 10 points will be deducted from assignments turned in at the end of class; 15 points will be deducted after 24 hours; and 5 points will be deducted each day, thereafter. This includes group assignments. **If you will not be in class the day the assignment is due, turn it in early or give it to a trusted person to turn it in during class time.**
- Any evidence of cheating, academic misconduct, or other unethical behavior shall be treated in accordance with the University of Florida's Student Conduct Code.
- Student athletes are required to provide the instructor with written documentation of away games that are in conflict with exams by the second week of the semester.
- Students who are registered with the Disability Student Center are asked to bring their accommodation letter as early in the semester as possible, but ideally by the second week. This will allow the instructor and student to have an action plan as soon as possible.

## MY EXPECTATIONS OF YOU

- Read your syllabus
- Complete all reading assignments before class
- Attend class

- Participate in class discussions
- Give your best at all times
- Make excellence your goal
- Make good choices
- Accept the consequences of your poor choices
- Take responsibility for your learning
- Manage your time well
- Develop discipline and good study habits
- Do it right the first time
- Show initiative
- Don't make assumptions
- Ask if you don't understand
- Have integrity—don't cheat, plagiarize, or lie



## PROFESSIONALISM (20 possible points)

Students will be graded on professionalism. Professionalism includes, but is not limited to: attendance, arrival on time and staying for entire class, participation in class discussions, contributing to a positive class environment, high level of participation in group projects, responding to emails and announcements in a timely manner, and respecting class policies (texting, cell phone use, etc.). Professionalism is a subjective assessment and the final point value is determined by the instructor. The general guidelines are:

- **20 points** (perfect attendance, arrives to class on time and stays for entire class, respectful attitude, high level of contribution to class discussions, very valuable group member)
- **18-19 points** (missed 1 class, arrives to class on time and stays for entire class, respectful attitude, regular contribution to class discussions, very valuable group member)
- **16-17 points** (missed 2 classes, arrives to class on time and stays for entire class, respectful attitude, regular contribution to class discussions, valuable group member)
- **9-15 points** (missed 3-5 classes, usually arrives late, leaves class early at times, little or no class participation, poor correspondence with professor, shows disrespect for class policies, negative feedback from group members, poor participation in group project)
- **0-8 points** (missed 6 or more classes, usually arrives late, leaves class early at times, little or no class participation, poor correspondence with professor, shows disrespect for class policies, unprofessional interaction with professor, negative feedback from group members, poor participation in group project)

## EXAMS (2 @ 115 points=230 points)

There will be 2 non-cumulative exams. **Students are required to bring their laptops to class to take the online exams.** There are no make-up exams. Exams consist of multiple choices, matching, true/false, and short answer questions. Students are expected to synthesize and integrate the information presented in the lectures and readings. Students found collaborating together on exams will receive zero points and **WILL BE REFERRED TO STUDENT HONOR COURT.**

Despite what you may see on the exam page of eLearning, your time for the exam begins when you log in and ends when the allotted time (e.g. 60 minutes) to complete the exam expires. For example, if the exam is available from 10:00 am to 11:30 am and you have 60 minutes to complete the exam then you should log in at 10 or as close to it as possible to make sure that you get to use your full 60 minutes. If you choose to log in at 11:15, then you have only 15 minutes to complete the test since it closes at 11:30. **If for some reason the computer allows you to continue past 11:30 or the set expiration time, the instructor will force a submission of the exam.**

## ASSIGNMENTS (250 points)

**A. Online Discussion Postings (3 @ 20 points each=60 points).** The purpose of this assignment is to facilitate discussion on contemporary health issues. Questions will be posted online during the semester for discussion and students

are expected to provide thoughtful, researched responses. The postings will be graded based on the application of relevant concepts, citation of the scientific literature, linkage to professional, personal, or other real-world experiences, creativity, and original insights. Postings should be at least 500 words and supported with citations from the literature and other appropriate sources. You have 48 hours to respond. Please check the course website regularly to see when questions are posted. Late postings will not be graded.

### **Group Assignments: Epidemiological Investigation. (PhD students work alone; Masters' students work in pairs)**

**B. Literature Matrix (25 possible points).** Students will conduct a thorough search of the scientific literature on the assigned topic. **Instructor will assign the question to the student.** Students are required to examine at least 25 manuscripts from the scientific literature and write a detailed response. Try to find at least one example of the following types of articles—randomized control trial, meta-analysis, evaluation of an intervention, review article, and multi-center study. Provide a one-page description of your methodology (data bases used, years searched, keywords used, etc.).

**C. Poster Board of Epidemiologic Investigation (45 points).** Student will formulate a research presentation based on the findings from the literature review and develop a poster board presentation. The poster can be professionally printed or professionally laid out on a poster board to save money. You should provide the class with an abstract (200-250 words). Poster boards will be displayed and presented the last hour of class as a “mock scientific conference). Prepare a brief 8-minute presentation. Professional dress is required. The presentation should address:

- The project goals
- Definition and significance of the research question(s)
- Overview of the methodology
- Significant results, with appropriate charts, graphs, tables, etc.
- Public health implications of the findings
- Clinical recommendations

You will also be graded on presentation skills and overall professionalism

**C. Video PSA (120).** Create a professional 5-minute educational video targeted to the target population (consumers) on the assigned topic. The video can be academic (serious), humorous, or a combination. Take time to write the script, choose the right person for each role, select the right music, and edit the final product. This must look very professional. Please save the file on a CD, NOT a DVD. Please save it as a Windows media file in the “wmv” format. This is the only file format that will be accepted. You also need to upload the video on [www.YouTube.com](http://www.YouTube.com) and track the number of hits. Credits should roll at the end of the video. Have fun with it! Videos will be graded on:

- Content
- Creativity/originality
- Video and sound quality
- Appropriate music
- Special effects
- Filming and editing
- Acting
- Professionalism
- Etc.

### **Epidemiologic Investigation**

1. Long-term survivors with HIV
2. Parental and home influence on childhood obesity
3. Breast cancer and African American women
4. Tea consumption and cancer risk
5. Mental health issues in college students (anxiety and obsessive compulsive disorders)
6. Uterine fibroids and fertility
7. Characteristics of programs that result in long-term weight loss and maintenance
8. Cell phones and brain tumors
9. Dating violence among teens
10. School bullying

## GRADING SYSTEM

### Course Point System

467.5-500=A	450-467.49=A-	432.5-449.49=B+	417.5-432.49=B
400-417.49=B-	382.5-399.49=C+	367.5-382.49=C	350-467.49=C-
332.5-349.49=D+	317.5-332.49=D	300-317.49=D-	Less than 300=E

### UF Grade Points Effective Summer A 2009

A=4.0	A-=3.67	B+=3.33	B=3.0	B-=2.67	C+=2.33
C=2.0	D+=1.33	D=1.0	D-0.67	E=0	

UF's grading policy can be found at <http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html>.

## TENTATIVE CLASS SCHEDULE

DATE	TOPIC	READINGS	COMMENTS
<b>Week 1</b> <b>Jan 6</b>	Course Overview; Intro to Epi	Ch 1	
<b>Week 2</b> <b>Jan 13</b>	The History and Scope of Epidemiology Practical Applications of Epidemiology	Ch 1, Ch2	
<b>Week 3</b> <b>Jan 20</b>	Measures of Morbidity and Mortality Descriptive Epidemiology: Person, Place, Time	Ch 3 Ch 4	
<b>Week 4</b> <b>Jan 27</b>	Descriptive Epidemiology: Person, Place, Time Sources of Data for Use in Epidemiology	Ch 4 Ch 5	
<b>Week 5</b> <b>Feb 3</b>	Study Designs: Ecologic, Cross-Sectional, Case-Control	Ch 6	
<b>Week 6</b> <b>Feb 10</b>	Study Designs: Cohort Studies	Ch 7	
<b>Week 7</b> <b>Feb 17</b>	Experimental Study Designs <b>Literature Matrix Due</b>	Ch 8	
<b>Week 8</b> <b>Feb 24</b>	<b>Exam 1</b> <b>American School Health Conference</b>		
<b>Week 9</b> <b>Mar 3</b>	Measures of Effect Data Interpretation Issues	Ch 9 Ch 10	
<b>Week 10</b> <b>Mar 10</b>	<b>Spring Break</b>		
<b>Week 11</b> <b>Mar 17</b>	Screening for Disease in the Community <b>Videos Due</b> Epidemiology of Infectious Disease	Ch 11 Ch 12	
<b>Week 12</b> <b>Mar 24</b>	Epidemiology of Infectious Diseases Epidemiology of Work and the Environment	Ch 12 Ch 13	

<b>Week 13</b> <b>Mar 31</b>	<b>AAHPERD Conference</b>	Ch 14	Molecular and Genetic Epidemiology
<b>Week 14</b> <b>Apr 7</b>	Psych, Behavioral, and Social Epidemiology	Ch 15	Psych, Behavioral, and Social Epidemiology;
<b>Week 15</b> <b>Apr 14</b>	<b>Poster Presentations</b>	Ch 16	Epidemiology as a Profession
<b>Week 16</b> <b>Apr 21</b>	<b>Reading day</b>		
<b>Apr 28</b>	<b>Exam 2</b>		

## HOW TO IMPROVE YOUR GRADE AND UNDERSTANDING OF THE COURSE MATERIAL

- A. Attend all the lectures and take thorough notes. If you stay current in your studies, you will improve your chances of success in this course. Thus, if you happen to miss a lecture, get the notes from a classmate before you come to the next lecture.
- B. Get to class early so that you can settle down, get your notes out, and converse with classmates. If you come to class late you may miss important announcements or the beginning of important lecture topics. Additionally, by coming in late you disrupt the concentration of the instructor and your classmates.
- C. If you have had difficulty in courses before, try to sit near the front of the class. You will be able to see and hear more clearly, while at the same time presenting you with fewer distractions.
- D. Study every day. You are expected to put in 3 hours outside the classroom for every hour of credit you take. If you are taking 12 credit hours, then you should be putting in at least 36 hours a week in preparing for class.
- E. Review your lecture notes as soon as possible. Educational studies have shown in the following:

<b>Time between lecture and student review</b>	<b>Retention of material %</b>
2 hours	98% a few hours later
2 hours	97% a week later
2 hours	90% three weeks later
24 hours	54% a few hours later
48 hours	50% a few hours later

If you try to cram for an exam two weeks after a lecture, your retention increases from 20% to 24%. **Moral: You can't cram for an exam and expect to do well.**

- F. While you study, several techniques may improve your efficiency.
  - a. If you have many subjects to study, work on the most difficult one first. Find a quiet place to study.
  - b. If you have many difficult subjects, rotate your studies. Work on one until you feel you need a break from the subject. Then switch to the next subject. When you are tired of it, go to the next subject or back to the original one.
  - c. Take a break after about an hour and relax for about 10 minutes. Then return to your studies. Watch the time so that you don't end up with prolonged breaks and shortened study periods.
  - d. In a day, several shorter study sessions are more beneficial than one long one. Two or three hours in the afternoon and two or three hours in the evening will result in better learning than a single four or six hour period.
  - e. Study groups of 3 or 4 students can be effective for the exchange of concepts.
  - f. Work the Review Questions in each of the chapters.
- G. Taking an Exam.
  - a. Be well prepared for the exam and you will find your anxiety level reduced.
  - b. Take your time and read the questions carefully.
  - c. Concentrate on the questions you know how to answer; skip the questions you can't solve quickly. Come back to them later.
  - d. Keep an eye on the time; save a little time for looking over the entire test.
  - e. Try not to change your answers.