

University of Florida
College of Public Health & Health Professions Syllabus
PHC 6008: Epidemiology and Prevention of Cardiovascular Diseases (2 credits)
Spring 2018
Delivery Format: On-Campus
E-Learning: <https://ufl.instructure.com/courses/350132>

Instructor Names: David S. Sheps, MD, MSPH and Thomas A. Pearson, MD, MPH, PhD
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Phone Numbers: Dr. Sheps: (352) 271-0679; Dr. Pearson: (352) 733-1800
Email Addresses: Dr. Sheps: dsshops@ufl.edu; Dr. Pearson: tapearson@ufl.edu
Office Hours: By appointment. Email Dr. Sheps or Melody Trapani (mtrapani@ufl.edu) for Dr. Pearson.

Teaching Assistant: N/A

Preferred Course Communications (e.g. email, office phone): Email

Course Location and Times: HPNP 1102; Spring 2018 (January 8 – April 25); Mondays, 3:00 – 4:55 PM

Prerequisites

Students are expected to have a working knowledge of epidemiology, such as that obtained in PHC 6001 *Principles of Epidemiology in Public Health*. If you have questions about your preparation for the course, please contact Dr. Sheps.

PURPOSE AND OUTCOME

Course Overview

The purpose of this course is to enable the participant to become familiar with the distribution and determinates of cardiovascular diseases in populations and the research methods used in this field of study. Students and faculty will review the population burden of the main categories of cardiovascular diseases, the factors that influence their distribution and clinical outcomes, the methods used in public health-oriented, epidemiologic research of subclinical and clinical cardiovascular disease, and of vascular health.

Course Objectives

1. Develop an understanding of the historical setting of cardiovascular diseases in human societies and their current and predicted impacts on public health.
2. Describe the basic pathophysiologic mechanisms underlying cardiovascular diseases.
3. Understand the risk factors for cardiovascular diseases and appropriate ways to define exposure and outcome variables.
4. Identify epidemiological methods and analytic techniques commonly used in the study of cardiovascular diseases.
5. Critically evaluate published research on cardiovascular diseases and their risk factors.
6. Identify evidence-based clinical and population-based preventive measures for cardiovascular diseases.

Instructional Methods

1. Lectures: are for general orientation. Students are responsible for all the material presented in the course and assigned readings.
2. Readings: The required text is: Labarthe DR. *Epidemiology and Prevention of Cardiovascular Diseases: A Global Challenge*. 2nd edition. Sudbury, MA: Jones and Bartlett Publishers. 2011. The

text is available in the Health Science Center Bookstore. New or used copies may be ordered from Amazon.com.

The list of assigned readings is provided with the course schedule below. The assigned reading material is intended to supplement lectures. The reading list may be supplemented during the course.

3. Exams: There are 2 exams in this course. The exams will include short answer, multiple choice, and/or true/false questions, and each will count for 25% of the final grade. Exams will be administered during class.
4. Make-up exams: Make-up exams will be available with a note from a doctor or prior approval by the course director.
5. Project presentations: Each student will develop a presentation for the class on a cardiovascular epidemiology topic. Presentations will count for 35% of the final grade. Information regarding topic selection and presentation content will be disseminated in class.
6. Attendance and class participation: Consistent with the spirit of graduate education and the interactive nature of public health practice, students are expected to attend and participate fully in every class session. Participation will constitute 15% of the grade. If you are unable to attend a class for any reason, notify Dr. Sheps by email before the session.

DESCRIPTION OF COURSE CONTENT

Topical Outline/Course Schedule

Week	Date/Session		Topic(s)	Speaker	Readings
1	1/8	A	Course Introduction Epidemiologic Transition and Global Burden of CVD	Sheps/ Pearson	Labarthe, Chapter 1
		B	Women and CVD	Sheps/ Handberg	Labarthe, Chapters 2, 20, and pages 476 ff
2	1/15	No class; Martin Luther King, Jr's Birthday			
3	1/22	A	Pathophysiology of Atherosclerosis	Pearson	Labarthe, Chapter 3
		B	Lab/Discussion: Natural history of coronary artery disease		
4	1/29	A	Measures used in CV Epidemiology: CV Imaging, ECG & Arrhythmia, Heart Function and Heart Failure.	Schmalfuss	
		B	Lab/Discussion: Early recognition and acute care of coronary syndromes		
5	2/5	A	CVD Risk Factors: Longitudinal Studies of CVD	Pearson	
		B	Lab/Discussion: CVD Risk Prediction		
6	2/12	A	Family history and genetics of CVD	Pearson	Labarthe, Chapter 7

Week	Date/Session		Topic(s)	Speaker	Readings
		B	Pharmacogenetics of CVD	Cooper- Dehoff	
7	2/19	A	Behavioral Risk Factors (Tobacco abuse, alcohol and substance abuse, stress, compliance with care)	Sheps/ Striley	Labarthe, Chapters 14, 15, 16
		B	Lab Discussion: CVD risk reduction trials		
8	2/26	A	Blood pressure and Hypertension	Pepine	Labarthe, Chapter 12 SPRINT Research Group, 2015 Margolis, et.al, 2014 Hypertension Guidelines, 2017
		B	Lab/Discussion: Clinical trials of blood pressure lowering medications		
9	3/5	No class; Spring Break			
10	3/12	A	Serum Lipids and Lipoproteins	Pearson	Labarthe, Chapter 11
		B	Exam 1/Outline of student presentations due		
11	3/19	A	Metabolic risk factors: Obesity, Metabolic Syndrome, Diabetes	Perri	Labarthe, Chapters 8, 10, 13
		B	Lab/Discussion: Diabetes prevention trials		
12	3/26	A	Physical activity and the heart	Sheps	Labarthe, Chapter 9
		B	Lab/Discussion: Promotion of Physical activity at the individual, clinical (cardiac rehabilitation), and community levels		
13	4/2	A	Community-based approaches to CV risk reduction	Pearson	Labarthe, Chapters 18, 20, 21, 22
		B	Lab/Discussion: Community guide to prevention of heart disease and stroke at the community level		
14	4/9	Student Presentations			
15	4/16				
16	4/23				
Exam	4/30	A	Course Evaluation		
		B	Exam 2		

Session A: 3:00-3:50PM
Session B: 4:05-4:55PM

Location: HPNP Room 1102

Course Materials and Technology

Hypertension Guidelines. *Circulation*. November 14, 2017.

Labarthe DR. *Epidemiology and Prevention of Cardiovascular Diseases: A Global Challenge*. 2nd edition. Sudbury, MA: Jones and Bartlett Publishers. 2011.

Margolis KL, O'Connor PJ, Morgan TM, Buse JB, Cohen RM, Cushman WC, Cutler JA, Evans GW, Gerstein HC, Grimm RH, Lipkin EW, Narayan KMV, Riddle MC, Sood A, Goff DC. Outcomes of Combined Cardiovascular Risk Factor Management Strategies in Type 2 Diabetes: The ACCORD Randomized Trial. *Diabetes Care* 2014 Jun; 37(6): 1721-1728. <https://doi.org/10.2337/dc13-2334>.

SPRINT Research Group. A Randomized Trial of Intensive versus Standard Blood-Pressure Control. *N Engl J Med* 2015; 373:2103-2116 November 26, 2015 DOI: 10.1056/NEJMoa1511939.

For technical support for this class, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

Speakers

Rhonda Cooper-DeHoff, PharmD, MS. Associate Professor, Department of Pharmacotherapy and Translational Research, and the Department of Pharmaceutics in the College of Pharmacy, and Division of Cardiovascular Medicine, College of Medicine at the University of Florida.

Eileen Handberg, PhD, ARNP. Research Professor of Medicine and Director of the Cardiovascular Clinical Trials Program in the Division of Cardiovascular Medicine, College of Medicine, University of Florida.

Thomas A. Pearson, MD, MPH, PhD. Professor, Department of Epidemiology and Executive Vice President for Research and Education, Health Science Center, University of Florida.

Carl Pepine, MD. Professor, Division of Cardiovascular Medicine, Department of Medicine, College of Medicine, University of Florida.

Michael G. Perri, PhD. Robert G. Frank Professor, Department of Clinical and Health Psychology and Dean, College of Public Health and Health Professions, University of Florida.

Carsten Schmalfuss, MD. Clinical Assistant Professor of Medicine, Division of Cardiovascular Medicine, College of Medicine, University of Florida and Chief, Section of Cardiology at the Malcom Randall VA Medical Center.

David S. Sheps, MD, MSPH. Professor, Department of Epidemiology, College of Public Health and Health Professions and College of Medicine, University of Florida.

Catherine Striley, PhD, MSW, ACSW, MPE, Associate Professor, Department of Epidemiology, College of Public Health and Health Professions and College of Medicine, University of Florida.

ACADEMIC REQUIREMENTS AND GRADING

Assignments

Each student will develop a presentation for the class on a cardiovascular epidemiology topic. Presentations will count for 35% of the final grade. Information regarding topic selection and presentation content will be disseminated in class.

Grading

Requirement	Due date	Points or % of final grade (% must sum to 100%)
Exam 1	March 12	25%
Presentation	April 16	35%
Exam 2	April 30	25%
Class participation		15%

Points earned	95-100	90-94	85-89	80-84	75-79	70-74	65-69	Below 65
Letter Grade	A	A-	B+	B	C+	C	D	E

Please be aware that a C- or lower is not an acceptable grade for graduate students. A grade of C counts toward a graduate degree only if an equal number of credits in courses numbered 5000 or higher have been earned with an A.

Letter grades translate to the following grade points at UF:

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	WF	I	NG	S-U
Grade Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0.0	0.0	0.0	0.0	0.0

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar's Grade Policy regulations at:

<http://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Exam Policy

There are 2 exams in this course. The exams will include short answer, multiple choice, and/or true/false questions, and each will count for 25% of the final grade. Exams will be administered during class.

Policy Related to Make up Exams or Other Work

Make-up exams will be available with a note from a doctor or prior approval by the course director.

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail me within 24 hours of the technical difficulty if you wish to request a make-up.

Policy Related to Required Class Attendance

Consistent with the spirit of graduate education and the interactive nature of public health practice, students are expected to attend and participate fully in every class session. Participation will constitute 15% of the grade. If you are unable to attend a class for any reason, notify Dr. Sheps by email before the session.

Please note all faculty are bound by the UF policy for excused absences. For information regarding the UF Attendance Policy see the Registrar website for additional details:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Academic Integrity

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:

<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>

<http://gradschool.ufl.edu/students/introduction.html>

Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Online Faculty Course Evaluation Process

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

SUPPORT SERVICES

Accommodations for Students with Disabilities

If you require classroom accommodation because of a disability, you must register with the Dean of Students Office <http://www.dso.ufl.edu> within the first week of class. The Dean of Students Office will provide documentation of accommodations to you, which you must then give to me as the instructor of the course to receive accommodations. Please make sure you provide this letter to me by the end of the second week of the course. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: <http://www.counseling.ufl.edu>. On line and in person assistance is available.
- You Matter We Care website: <http://www.umatter.ufl.edu/>. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: <https://shcc.ufl.edu/>
- Crisis intervention is always available 24/7 from:
Alachua County Crisis Center:
(352) 264-6789
<http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx>

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

Inclusive Learning Environment

Public health and health professions are based on the belief in human dignity and on respect for the individual. As we share our personal beliefs inside or outside of the classroom, it is always with the understanding that we value and respect diversity of background, experience, and opinion, where every individual feels valued. We believe in, and promote, openness and tolerance of differences in ethnicity and culture, and we respect differing personal, spiritual, religious and political values. We further believe that celebrating such diversity enriches the quality of the educational experiences we provide our students and enhances our own personal and professional relationships. We embrace The University of Florida's Non-Discrimination Policy, which reads, "The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans' Readjustment Assistance Act." If you have questions or concerns about your rights and responsibilities for inclusive learning environment, please see your instructor or refer to the Office of Multicultural & Diversity Affairs website: www.multicultural.ufl.edu
