

Epidemiology and Genetics of Aging (P8404)
Spring 2009
(1/26/09-5/4/09)

Instructor: Joseph H. Lee, DrPH
 Hours: Mon 1pm - 3pm
 Classroom: TBD
 Office Hours: 11-2pm Mon, or by appointment
 PH19-305 (office)
 305-6022 (voice)
 342-5144 (fax)
JHL2@columbia.edu (email)

Prerequisite: Epidemiology II

Grading		
Number	Description	%
1	Problem set	25%
1	3-page critique	25%
1	Research proposal	50%

Suggested Textbooks:

Part I: Wallace RB, Woolson RF. The Epidemiologic Study of the Elderly. New York, Oxford Press 1992.

Albert SM. Public Health and Aging: An Introduction to Maximizing Function and Well-being. New York, Springer Publishing Co., 2004.

Part II: Strachan & Read. Human Molecular Genetics 3. New York, Garland Science, 2004.

Problem set:

One problem set will be assigned: one from the epidemiology part, and another from the genetics part.

3-page critique of a published study:

The critique should be maximum 3-pages (double spaced) long, and should include: (1) Description of the study (hypothesis, sample, findings, conclusion); (2) strengths and weaknesses (design, analysis, interpretations); and (3) your evaluation of the paper.

Final paper:

Write a 5-page research proposal on aging or age-related disease. The proposal should include: (1) Abstract; (2) Specific Aims; (3) Background and Significance; and (4) Research Design.

The research proposal should be on aging or on a late onset disease.

TENTATIVE SCHEDULE

Lect	Date	Instructor	Topics (Tentative)
1	1/26	Lee	Overview of aging
2	2/2	Horiuchi	Demography of aging
3	2/9	Cosentino	Normal cognitive aging
4	2/16 (?)	Terry (?)	Life course epidemiology: Breast cancer
5	2/23 (?)	Nieves	Epidemiology of bone health and diet
6	3/2	Luchsinger	Cardiovascular disease and/or diabetes in elderly
7	3/09	Lee	Genetic epidemiology: Study design
	3/16		Spring Break
8	3/23	Lee	Familial aggregation and heritability & Gene-environment interaction
9	3/30	Schupf	Down Syndrome as a human model system of aging
10	4/6	Lee	Linkage & Association analyses: I
11	4/13	Lee	Linkage & Association analyses: II
	4/13		Problem set due
12	4/20	Lee	Genetic epidemiology of Alzheimer Disease
13	4/27	Lee	Human genetics of longevity
	4/27	Williamson	Genetic counseling: Alzheimer disease
	4/27		Critique due
14	5/4	Clark	Molecular genetics of neurodegenerative disease: PD
	5/11		Proposal due