Dear Students:

I invite you to learn more about PHS 801 Epidemiology of Infectious Diseases. This is a 3-credit course that will be offered in Spring 2010 on Tuesdays and Thursdays from 2:30-3:45 PM. There are no prerequisites for the course and enrollment is limited to graduate-level students only.

This course substitutes the 2-credit version last taught as PHS 904 in Fall 2008. Enhancements include the teaching of methodology specific to studying the epidemiology of infectious diseases and the expansion of infectious diseases covered.

Students who complete this course will have a greater appreciation and understanding of:

1. Main epidemiologic characteristics of the major infectious diseases of humans.
2. Host, organism and environment relationship as they relate to infectious disease epidemiology.
3. Application of epidemiological methods to study infectious diseases.
4. How epidemiologic characteristics of infectious diseases are utilized to prevent and control their spread.
5. Causes and distribution of current epidemics including newly emerging and reemerging infectious diseases.
6. Impact of infectious diseases on populations and communities locally and globally.

Lectures for course broadly fall into three categories:

1. Biological basis for studying the epidemiology of infectious diseases
2. Public health approaches to addressing infectious diseases
3. Biomedical approaches to understanding transmission and natural history of infectious diseases

Approximately 80% of lectures will be given by experts across campus, the State Lab, and Department of Health Services. Overall, 26 of 30 lecture topics and lecturers have been determined (dates are being worked out). These include:

Introduction to infectious disease epidemiology
Classification of infectious agents and diseases
Host susceptibility and response to infectious diseases
Antimicrobial agents and vaccines
Laboratory methods in the study of infectious diseases
Surveillance
Outbreak investigation
Zoonotic diseases
Enteric diseases
Epidemiologic study designs and the establishment of causality
Evidence for an infectious cause of Crohn's disease
Models for the study of infectious disease
Applied mathematical models for health and disease
Food safety

Infection control
Transmission of multidrug resistant organisms
Influenza
Sociobehavioral approaches to prevent infectious disease
Influenza vaccination
Vaccine preventable diseases
Tuberculosis
Hepatitis
HIV/AIDS
Malaria
Climate change and infectious diseases
West Nile Virus

Tentatively, evaluation includes class participation (20%), take-home exercise(s) (30-40%) and a final exam (40-50%). The format of the final exam will be 30-50 short answer/multiple choice "know-it-or-you-don't"-type questions drawn from lecture and assigned reading.

The textbooks that will be used in the course are:

1. Nelson KE and Williams CM. Infectious Disease Epidemiology: Theory and Practice Jones and Bartlett Publishers, Inc; 2006. ISBN: 0763728799

2. Heymann D. Control of Communicable Diseases Manual, 19th Edition. Washington, DC: American Public Health Association; 2008 ISBN: 087553189X

I look forward to having you in the course. If you have any questions, please do not hesitate to send them my way (aksethi@wisc.edu). A syllabus will be posted on the PHS website before Dec 1.

Sincerely,
Ajay

Ajay K. Sethi, PhD, MHS
Assistant Professor
Department of Population Health Sciences
University of Wisconsin-Madison School of Medicine and Public Health
610 Walnut Street, 587 WARF
Madison, WI 53726-2397
608-263-1756 (office)