ENS
Escuela Nacional de Sanidad

Instituto de Salud Carlos III

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Curso impartido íntegramente en inglés

Con la colaboración de la Universidad de Alcalá de Henares

Universidad de Alcalá

MINISTERIO DE ECONOMÍA Y COMPETITIVIDAD

Instituto de Salud Carlos III

Informatics in Population Health Surveillance

Escuela Nacional de Sanidad
Madrid, 8 a 10 de junio de 2016

Professor: Lorna Thorpe

Program Director, Epidemiology & Biostatistics.
City University of New York School of Public Health at Hunter College
E-mail: lthor@sph.cuny.edu
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Lecture: June 8-10, 9-5pm, LOCATION
Office Hours: 8am prior to class and by appointment

Course requirements and grading

Class Participation	25%
Homework assignments (2)	50%
Final presentation	25%
Total	100%**lass**

Participation:

Attendance, preparation for class, and active participation will count towards your final grade. Please help create a constructive learning environment by reading material in advance and contributing to the discussions in the classroom. Different people have different ways in which they participate best, all of which are valid. I encourage students to interact with me and with other students.

Homework assignments:

There will be homework assignments each night. Students will be expected to read the assigned articles before the next day and write a short critique of a surveillance system assigned to them (max 1page). The critique should not be just a summary of the readings. It should assess utility, strengths and limitations, and suggest alternative approaches, etc. Homework assignments should be sent to me electronically by 8am the next day.

Presentation:

Part of the time during the last class will be devoted tostudents' presentations of their selected project.

Wednesday, June 8

9:30am – 10:30am
1. Inaugural Conference: Defining population health surveillance

10:30am-13:30pm
Traditional public health surveillance data sources
  a. Reportable disease registries
  b. Vital records (Mortality and natality)
  c. Hospital discharges/ED visits
  d. Surveys
LUNCH

15:00pm-18:00pm
1. Discussion - Evaluating surveillance systems
2. Exercise – Identifying strengths and weaknesses of the existing surveillance systems

Thursday, June 9

9:30am-11:00am
Emerging data sources
  a. Electronic health records
  b. Electronic laboratory data
  c. Health insurance data systems
  d. Social media (Internet usage patterns, citizen data collection)
  e. Other?

11:30am – 13:30pm
1. Role of national clinical quality improvement initiatives in population health surveillance efforts
  a. United States – Meaningful use and patient-centered medical home criteria
  b. Europe –
2. Innovations in technology relevant to surveillance
LUNCH

15:00pm – 18:00pm
1. Discussion - Validation of new sources
2. Exercise - Triangulation of data sources

Friday, June 10

9:30am-11:00am
  Technologies in informatics-informed surveillance
11:30am – 13:30pm
  Applications of informatics-informed surveillance
LUNCH
15:00pm – 18:00pm
  FINAL PRESENTATIONS

COURSE DESCRIPTION:

Increasingly, the field of public health is turning to informatics-informed solutions to monitor and address the health of communities. Rapid technological advancements, large volumes of health data from disparate sources, increased use of technologies in healthcare, and the growing use of mobile /internet applications have all contributed to the need for a public health workforce that is trained in the systematic application of information technology and computer science to *public health* practice, research and learning. Specifically, since 2010, the fields of clinical medicine and public health have benefited from a rapid surge of research on the burden and management of chronic diseases using electronic health records (EHRs). EHRs are appealing because they can offer large sample sizes, timely information and clinical data beyond that obtained from health surveys or administrative data. This course will systematically explore the emerging role of informatics in population health surveillance, including new data sources (electronic health records, electronic laboratory data, insurance information, and social media), triangulation of data sources, and the convergence of population health and primary care objectives in preventing and managing chronic diseases. Validity, reliability, strengths and weaknesses of new systems will be examined using applications from Europe, North America and Australia. In this course, there will be a mix of lectures, student-led discussions, and hands-on activities with specific tools.