

UNC Department of Epidemiology



Fundamentals of Public Health Surveillance

Epidemiology 750 Course Information and Sample Schedule

Course Instructors	<i>Lead Instructor: Deb Irwin PhD, Co-Instructor: Lorraine Alexander, DrPH</i>
Contact	Lorraine.Alexander@unc.edu
Course Materials	<i>No textbook, all materials are online</i>
Course Modality	<i>Online</i>

Module 1: Population Health: Assessment, Indicators, and Measures (3 Weeks)

<p>LiveMeeting: Course Introduction and Welcome <i>Debra Irwin, PhD, MSPH, will host this optional online LiveMeeting. Come learn about the course topics and meet the faculty.</i></p>
<p>Lectures</p> <ol style="list-style-type: none"> 1. Introduction to Public Health Surveillance 2. Population Health Information Overview 3. Population Health and Community Health Assessment 4. Population Health Indicators and Summary Measures
<p>Required Readings</p> <ol style="list-style-type: none"> 1. History of Public Health Surveillance 2. Disease Surveillance at the State and Local Levels 3. Public Health Surveillance 4. Surveillance: The Sentinel Health Event Approach
<p>Part of Group Project (Icebreaker) Due <i>Introduce yourself on the discussion forum. Get to know your group's other members.</i></p>
<p>Case Studies Due</p> <ol style="list-style-type: none"> 1. Overview of Public Health Surveillance 2. Finding Information on Community Health <p>Submit your case studies via the Assignments tab in Sakai.</p>
<p>Group Project (Person, Place and Event Mystery) Due <i>Your team should have agreed on a group name by now and completed this group project. One person from your group should submit your group project via the Assignments tab in Sakai.</i></p>
<p>Module 1 Quiz Due Take and submit the quiz via the Tests & Quizzes tab in Sakai.</p>
<p>Group Project Peer Evaluations Due</p>

Module 2: Information Systems (3 Weeks)

Lectures <ol style="list-style-type: none">1. Information Systems Overview2. Types of Health Information Systems in the United States3. Evaluating Public Health Surveillance Systems4. Overview and Evaluation of NC DETECT: Syndromic Surveillance in North Carolina
Required Readings <ol style="list-style-type: none">1. Updated Guidelines for Evaluating Public Health Surveillance Systems2. Framework for Evaluating Public Health Surveillance Systems for Early Detection of Outbreaks3. Public Health Surveillance Systems
Group Project Begins (Evaluation of the WHO / International Union Against Tuberculosis and Lung Disease (IUATLD) Global Project on Drug Resistance Surveillance) <i>Note that this group project begins in module 2 but is due in module 3.</i>
Case Studies Due <ol style="list-style-type: none">1. CDC WONDER and the WHO's Global Health Atlas2. Canadian Criteria for Surveillance <p>Submit your case studies via the Assignments tab in Sakai.</p>
Module 2 Quiz Due Take and submit the quiz via the Tests & Quizzes tab in Sakai.

Midterm Quiz

Midterm Quiz (Evaluating a Surveillance System) Due
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Module 3: Types of Surveillance (3 Weeks)

Group Project Due (Evaluation of the WHO / International Union Against Tuberculosis and Lung Disease (IUATLD) Global Project on Drug Resistance Surveillance) <i>This group project began in module 2. One person from your group should submit your group project via the Assignments tab in Sakai.</i>
Group Project Peer Evaluations Due <i>(Evaluation of the WHO / International Union Against Tuberculosis and Lung Disease (IUATLD))</i>
Student Evaluation of TA Due
Lectures <ol style="list-style-type: none">1. Chronic Disease Surveillance2. Occupational and Environmental Surveillance3. Infectious Disease Surveillance
Required Readings <ol style="list-style-type: none">1. National Surveillance of Vaccine-Preventable Diseases2. Surveillance for Silicosis, 1993—Illinois, Michigan, New Jersey, North Carolina, Ohio, Texas, and Wisconsin3. Surveillance of Occupational Illness and Injury4. Chronic Disease Surveillance5. Challenges to Global Surveillance and Response to Infectious Disease Outbreaks of International Importance
Recommended Readings <ol style="list-style-type: none">1. Introduction: <i>ERIC Notebook Series on Cancer</i>2. Measuring Cancer: Cancer Registries and Cancer Surveillance3. Cancer Statistics: Cancer Incidence and Mortality Estimates

<p>Group Project (Analysis and Communication of Results) Begins Please note that this group project begins in Module 3 but is due in Module 4.</p>
<p>Case Studies Due</p> <ol style="list-style-type: none"> 1. Chlamydia 2. Variables from National Surveillance Systems 3. Coal Worker Pneumoconiosis in the United States <p>Submit your case studies via the Assignments tab in Sakai.</p>
<p>Module 3 Quiz Due Take and submit the quiz via the Tests & Quizzes tab in Sakai.</p>
<p>Individual Component of Group Project (Analysis and Communication of Results) Due This individual component is a quiz. Take and submit the quiz via the Tests & Quizzes tab.</p>

Module 4: Analysis and Communication of Results (3 Weeks)

<p>Lectures</p> <ol style="list-style-type: none"> 1. Data Analysis and Interpretation I 2. Data Analysis and Interpretation II 3. Communicating Information for Action 4. Federal Public Health Surveillance and Analysis of Surveillance Data 5. Surveillance Systems: Using and Presenting Surveillance Data
<p>Required Readings</p> <ol style="list-style-type: none"> 1. Emerging Infectious Diseases: Review of State and Federal Disease Surveillance Efforts 2. Surveillance of Acquired Immunodeficiency Syndrome (AIDS)
<p>Case Studies Due</p> <ol style="list-style-type: none"> 1. Global HIV/AIDS 2. Colon (Colorectal) Cancer Prevention <p>Submit your case studies via the Assignments tab in Sakai.</p>
<p>Group Project (Analysis and Communication of Results) Due <i>This group project began in module 3. One person from your group should submit your group project via the Assignments tab in Sakai.</i></p>
<p>Module 4 Quiz Due Take and submit the quiz via the Tests & Quizzes tab in Sakai.</p>
<p>Group Project Peer Evaluations Due</p>

Module 5: Special Topics in Surveillance (2 Weeks)

<p>Lectures</p> <ol style="list-style-type: none"> 1. Syndromic Surveillance in North Carolina 2. An Introduction to Geographic Information Systems (GIS) 3. Infectious Disease Surveillance and Outbreak Investigation Using Geographic Information Systems (GIS) 4. Using NC DETECT for Surveillance of Influenza-Like Illness and Influenza 5. Comparison of Global Health Surveillance Systems
<p>Required Readings</p> <ol style="list-style-type: none"> 1. System Descriptions: New York City Syndromic Surveillance Systems 2. North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT) 3. Castillo-Salgado. Trends and Directions of Global Public Health Surveillance. Epidemiologic Reviews. 2010. 32. 4. Mapping for Surveillance and Outbreak Investigation 5. Rapid Needs Assessments and GIS
<p>Module 5 Quiz Due Take and submit the quiz via the Tests & Quizzes tab in Sakai.</p>
<p>No Group Project for this Module</p>

No Case Studies for this Module

Final Project (3.5 Weeks)

Final Project Due

Please note that this project requires significant effort and constitutes a major portion of your grade. Begin work well before the due date to ensure you have adequate time to complete the project. Complete and submit the final project via the Tests & Quizzes tab on Sakai.