

School of Public Health and Health Services
Department of Epidemiology and Biostatistics

Epidemiology and Biostatistics Practicum (2 credits)
Fall Semester: Tuesdays, 4:00 - 6:00 pm, Ross Hall 121
Summer Semester: Wednesday 3:10 – 5:40pm

Ann Goldman, MPH
Practicum Co-Director
Ross Hall, 119 E
Tel.: (202)994-4581
Fax: (202)994-0082
Email: sphasg@gwumc.edu
Office Hours: Wed. 2-4 p.m. and by appt

Amanda Castel, MD, MPH
Practicum Co-Director
Ross Hall, Suite 119 B
Tel.: (202)994-8325
Fax (202)994-0082
Email: sphaxc@gwumc.edu
Office Hours: Fri. by appt

Alan Greenberg, MD, MPH, Chair
Seminar Co-Director
Ross Hall Suite 125
Tel.: (202)994-0612
Fax: (202)994-0082
Email: aeg1@gwu.edu
Office Hours: Th 2-5 pm by appt

MPH students are required to demonstrate proficiency in the application of the skills they acquire during their academic programs through the **Practicum** (PubH 214.13) and the **Culminating Experience** (PubH 215.13).

The **Practicum** is a credit/no credit course which consists of three elements:

- (a) Epidemiology-Biostatistics Skills Building Seminar – includes attendance at the six (6) or seven (7) sessions (depending on semester) outlined below.
- (b) Practice Activity - defined as a planned, supervised, and evaluated experience in a public health organization. The Practice Activity can consist either of a primary research or surveillance project including data collection and analysis, or a secondary analysis of an existing database. The Practice Activity enables the student to apply new skills in the context of public health, and must not be directly related to the student's day-to-day work. If the student does conduct the Practice Activity at his/her place of employment, this must be a separate activity for which the student is not remunerated.
- (c) Attendance at three Department research presentations - Students are expected to document their attendance by writing a paragraph describing each presentation including title, speaker, and a one-paragraph summary. Presentations cannot be counted twice to meet the SPHHS colloquium requirement.

The **Culminating Experience** is a graded course which consists of four elements that focus on the Practice Activity: (a) Concept Paper, (b) Proposal, (c) Final Report, and (d) Oral Presentation. These elements are described in detail in the Culminating Experience syllabus.

While it is not a requirement, it is possible for students to link the practicum and culminating experience.

Practicum Prerequisites

Course Prerequisites

- PubH 202 Biostatistical Applications for Public Health
- PubH 203 Principles and Practice of Epidemiology
- PubH 205 Policy Approaches to Public Health

Co-Requisites

- PubH 247 Design of Health Studies
- PubH 249 Use of Stat Packages for Data Management/Data Analysis

Recommended Courses

- PubH 204 Environmental and Occupational Health
- PubH 207 Social and Behavioral Science Methods
- PubH 252 Advanced Epidemiologic Methods

Other prerequisites

- Students must take the online training courses relating to research with human subjects (CITI) and personal health information (HIPAA) (see SPHHS Student Practicum Guidebook for details).
- Students must have participated in the mandatory SPHHS Practicum Training session, designed to assist students with preparing for their practicum and professional endeavors (see Practicum handbook for details).
- Students must have participated in the mandatory Department of Epidemiology and Biostatistics practicum orientation session.
- Before enrolling in the Practicum, students must choose a site for their Practice Activity.
- If applicable, students must submit IRB paperwork. (See Culminating Experience (PubH 215.13) syllabus for details).

Other co-requisites

- If students decide to link their practicum and culminating experience, a Concept paper and a Proposal (see Culminating Experience syllabus Pub H 215.13 for details) must be completed.

Student responsibilities

1. Students should meet with the Department Practicum Directors mid-way through the MPH program and begin the process of identifying the Practice Activity that will be the focus of their Practicum.
2. Students must participate in the SPHHS Practicum Training seminar to prepare them for the Practice Activity and should begin to explore the SPHHS Practicum website and other resources for practicum ideas.
3. Once sites, preceptors, and topics are chosen for each student, the Practicum Director assists the students in identifying their GW Faculty Advisor.
4. Students fill out a practicum plan on the SPHHS Practicum website.
5. Once a student has identified a site and a preceptor, has posted a practicum plan on the SPHHS website and had the preceptor review and PD sign off on the plan, s/he can register for the course. This information will be verified by the Assoc. Dean for Student Affairs in order for the registration go through.
6. Students are then ready to sign up for the Practicum. Registration for the practicum course must be completed using a Registration Transaction Form (RTF) and signed by the PD.
7. It is possible to sign up for the Practicum and Culminating Experience at the same time if they are linked. If the two are not linked, the Practicum must come first.
8. As part of the practicum course (PubH 214.13), students are required to attend the Epidemiology-Biostatistics Skills Building Seminar, a required 6 or 7-week course offered in 1st half of the Fall and Summer semesters.
9. Ideally, students should complete the Epidemiology-Biostatistics Skills Building Seminar before beginning the Practice Activity. The Seminar is generally offered in the Fall and Summer semesters to accommodate the timing of students' academic programs.
10. Students may decide to link the Practicum and Culminating Experience. Whether they do or not, they should plan to meet with the PD and GW Faculty Advisor to discuss their plans once the Practicum is completed.

Practicum Competencies

Students use the competencies below to develop their Practicum Plan in the SPHHS Practicum Website, by choosing two or three of the competencies that best apply to the chosen public health Practice Activity.

Course Objective – Upon completion of the course, students will be able to:
1. Identify and define a public health issue.
2. Develop a plan or proposal to apply the epidemiological principles needed to carry out the chosen public health Practice Activity.
3. Identify the appropriate data analysis methods.
4. Demonstrate competency in data collection.
5. Demonstrate proficiency in constructing and managing databases for epidemiological studies using statistical software, e.g. The SAS [®] System a specific project or endeavor.

Recommended/Supplemental Texts for the Epidemiology-Biostatistics Skills Building Seminar

Title	Author	Edition
Designing and Conducting Health Surveys	Aday, LA	Second edition, San Francisco, CA; Jossey-Bass; 1996.
Field Epidemiology	Gregg MB, editor	Second Edition. New York, NY: Oxford University Press; 2002.

Methods of Instruction

X	Lectures	X	Class Discussions
X	Required Readings/Textbook	X	Mock Study Review Session
X	Recommended/Supplemental Readings	X	Other : Written Assignments
X	On-site planned, supervised and evaluated practice activity		

Key Definitions – Course Participants

Students – Students work on a practice activity applying skills they have gained from their academic work in epidemiology.

Site Preceptor – The individual in the field who supervises the student’s work and provides input to the GW Faculty Advisor on the student’s performance, through an evaluation.

GW Faculty Advisor – A member of the GW SPHHS Department of Epidemiology and Biostatistics faculty who works with the student throughout the process to ensure that the student’s project and work meet Departmental standards. Reviews and approves Practicum documents, including the Practicum Plan.

Practicum Director – Guides student and reviews evaluations to give the final Practicum grade.

Methods of Evaluation

- Students will be evaluated on how well they have accomplished the objectives for their Practice Activity based upon the Department competencies outlined in the Practicum course syllabus by the on-site preceptor and the Practicum Director.
- Evaluations for the Practice Activity will take place at both the midpoint and the end. The student's on-site preceptor will be responsible for evaluating the student's performance, and the student will also evaluate his/her own experience (For more information, please see the SPHHS practicum handbook).
- Evaluation of student participation in the Epidemiology-Biostatistics Skills Building Seminar will be based upon the student's in-class participation.
- Provision of summaries for the three research presentations should take place by the end of the semester. These should be included in one document and posted to the Blackboard course through the Submissions section.

Grading Scale

The Practicum is graded as Credit or No Credit which will be determined by the Practicum Directors with input from the Site Preceptor and the GW Faculty Advisor. The student will receive credit if 70 percent of their scores are acceptable/passable or better on the final Site Preceptor evaluation of the student.

Class Policy: Attendance/Participation

Students will comply with the Practicum plan with respect to attendance at their Practice Activity. Students are expected to attend all six or seven sessions of the Epidemiology-Biostatistics Skills Building Seminar.

Blackboard

Blackboard will be used for posting course files and assignments and for communicating with the class. You are already "signed up" for this course on Blackboard, since it is linked to the course registration system. It is your responsibility to periodically check the course site (log in at <http://blackboard.gwu.edu/> using your gwu.edu address) for updates to the syllabus/readings.

Students will be required to post the concept paper, proposal and research summaries to the Blackboard course. In addition, they will be asked to fill out a Student Data survey about their practicum placement.

Website

During the Practicum, you will be required to use the SPHHS Practicum Website on a regular basis. All of the required Practicum forms (e.g. Practicum Plan) will be available and must be completed and submitted on this site. In addition, specific departmental materials will be available on the Department of Epidemiology and Biostatistics website.

Academic integrity

Please review the University's policy on academic integrity, located at www.gwu.edu/~ntegrity/code.html. All graded work must be completed in accordance with The George Washington University Code of Academic Integrity.

Academic dishonesty is defined as cheating of any kind, including misrepresenting one's own work, taking credit for the work of others without crediting them and without appropriate authorization, and the fabrication of information. Common examples of academically dishonest behavior include, but are not limited to, the following: cheating; fabrication; plagiarism; falsification and forgery of University academic documents; facilitating academic dishonesty.

Students with disabilities

If you feel you may need an accommodation based on the impact of a disability, please contact the Practicum Director to discuss specific needs. Please contact the Disability Support Services Office at 202.994.8250, Suite 242 Marvin Center, <http://gwired.gwu.edu/dss>, to establish eligibility and to coordinate reasonable accommodations.

**Epidemiology – Biostatistics Skills Building Seminar
Session Outline**

Session 1 Overview and Research Preparation

- 1.1 Seminar overview and objectives
- 1.2 Practicum overview
- 1.3 Organization and approach to conducting research; literature reviews.

Session 2 Scientific Ethics and Sample Size Estimation

- 2.1 Ethics and IRB
- 2.2 Sampling and Sample Size Estimation

Session 3 Effective Communication

- 3.1 Creating and delivering effective oral presentations using PowerPoint and developing posters
- 3.2 Effective communication: running meetings, professional email etiquette, how to give constructive criticism

Session 4 Proposal, Project Write-Up

- 4.1 Preparation of a Proposal and an Analysis Plan
- 4.2 Preparing a project write-up (research, deliverables)

Session 5 Management of Research Projects

- 5.1 Brief Project Management Presentation with Project Timetable
- 5.2 Presentation by former MPH student on his/her practicum experience
- 5.3 Student presentations and critiques – students will present their own project proposals (title, background, objectives, methods, and if possible table shells) and be critiqued by others in a simulated research committee review structure – Small groups led by department faculty

Session 6 Abstracts and Manuscripts
6.1 Writing a scientific abstract 6.2 How to put together a manuscript for publication 6.3 Student Presentations (continued) – Small groups led by department faculty
Session 7 Public Health Practice at the Local Government Level
7.1 Public Health practice in local government public health agencies. Invited guest from a local or state public health agency. 7.2 Closing Remarks, integration of skills, student feedback.