Vanderbilt MPH Program

SPRING 2019: New Elective Courses

Spring 2019 course information is available in YES; course registration opens October 31, 2018.

Instructions for course registration can be found in the MPH Student Handbook on the website under Current Students (medschool.vanderbilt.edu/mph/course-registration).

**PUBH 5560-01 Data Science for Learning Health Systems** (1 credit hour)

04/10-05/01, Mondays and Wednesdays, 3 to 5 p.m.  
Instructor: Everson

MPH Classroom #2600, Village at Vanderbilt

This is an elective course for students in all three tracks of the MPH Program.

This course is designed to provide an intuition-based primer in using rapidly growing biomedical data to support continuous learning in healthcare. Students will gain a conceptual overview of the Learning Health System and the infrastructure necessary to support its development. Students will also be exposed to key concepts in data science, ‘big data’, and the application of diverse methodologies to improve the quality of healthcare outside of traditional clinical trials and related approaches. No prior experience in data science is necessary, but an introductory statistics course will be helpful.

**PUBH 5512-01 Decision Analysis in Medicine and Public Health** (3 credit hours)

01/09-04/03, Wednesdays, 1 to 4 p.m.  
Instructors: Penson, Leech

MPH Classroom #2600, Village at Vanderbilt

This is an elective course for students in all three tracks of the MPH Program.

This course provides an overview of qualitative and quantitative decision making with a dominant focus on quantitative techniques, using clinical and economic endpoints and their role in clinical strategies of care and health policy. Topics include cognitive heuristics, Bayes’ theorem, ROC analysis, the study of diagnostic tests, meta-analysis, health states and utility measurement using expected value decision making, decision tree analysis, Markov processes and network simulation modeling, quantitative management of uncertainty, cost theory and accounting, cost-effectiveness and cost-utility analysis.

**PUBH 5565-01 Implementation Science** (2 credit hours)

01/07-04/08, Mondays, 2:10 to 5 p.m.  
Instructors: Audet, Prusaczyk

MPH Classroom #2600, Village at Vanderbilt

This is an elective course for students in all three tracks of the MPH Program.

This course serves as an introduction to the field of dissemination and implementation research. Students will learn the foundations of D&I including its theoretical underpinnings as well as how to design and conduct an implementation study. Additional topics such conducting D&I in community and public health settings, policy settings, and the global context will also be covered.

**HOD 6200-01 Program Evaluation** (3 credit hours)

01/07-04/22, Wednesdays, 4:10 to 7 p.m.  
Instructor: Suiter

Mayborn Building, Room 205

This is an elective course for students in all three tracks of the MPH Program.

This course is a masters-level introduction to evaluation research. It is designed for people who expect to work as agency directors, educational administrators, program directors, in-house evaluators, or evaluation
consultants and who want to work with community agencies to evaluate the organization's programs. At the end, students will be able both to conduct local evaluations and to communicate and work with professional evaluators. The course covers multiple approaches and types of evaluations and how they are embedded in social and political contexts. It also includes practical techniques for program developers and administrators, such as needs assessment, performance evaluation, goal attainment scaling, cost-benefit analysis, qualitative approaches, and approaches to evaluation that take time and funding constraints into account.

**NOTE:** Although this course is offered through the HOD program, several seats have been reserved for MPH students and **written instructor approval is not required for MPH students.** If you would like to register for this course, please contact Annie.

<table>
<thead>
<tr>
<th>Contact</th>
<th>Annie Smart, <a href="mailto:annie.smart@vanderbilt.edu">annie.smart@vanderbilt.edu</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Registration Instructions</td>
<td>medschool.vanderbilt.edu/mph/course-registration</td>
</tr>
<tr>
<td>Enrollment Bulletin</td>
<td>vanderbilt.edu/enrollmentbulletin</td>
</tr>
<tr>
<td>YES</td>
<td>yes.vanderbilt.edu</td>
</tr>
</tbody>
</table>