



Department of Health Administration and Policy

College of Public Health

Spring 2026

Syllabus	
Course information	<p>HAP 308 - Population Health Informatics Date/time: Tuesday 7:20 pm – 10:00 pm Location: Peterson Hall- 1105</p>
Course placement	<p><input checked="" type="checkbox"/> Core <input type="checkbox"/> Concentration <input type="checkbox"/> Elective <input type="checkbox"/> Pre-requisite(s) <input type="checkbox"/> Course(s) recommended before taking this course:</p>
Instructor	<p>Name: Hamid Jalal, MD, MHSA Contact Info: hjalal@gmu.edu, docjalal@gmail.com</p>
Course description	<p>The goal of this course is to provide students with foundational principles, informatics tools, methodologies, data sources, terminologies, and policy issues as they relate to the emerging field of population health informatics. Current national e-health and health care reform priorities and strategies, and their implications for population health will be discussed. In addition, students will review the historical and contemporary aspects of public health practice. This course also examines key concepts related to registries, electronic health records, epidemiological databases, bio surveillance, and quality reporting in population health management. Specific health informatics tools will be employed throughout the course, with many opportunities for gaining practical experience and completing hands-on projects.</p>
Course objectives	<ol style="list-style-type: none"> 1. Develop a working vocabulary of population health informatics and information technology terminology 2. Evaluate the role of population health management in improving health outcomes and controlling cost 3. Identify how patient safety, quality improvement, and value can be improved with the help of population and clinical informatics.

	<ol style="list-style-type: none"> 4. Identify current challenges in population health management and the key role of health information technology in addressing those challenges 5. Apply relevant health informatics concepts to the domain of population health 6. Apply data concepts, standards and architectures for sharing information to meet population health objectives 7. Define how project management can play a part in managing various population health informatics programs. 8. Identify the types of applications, types of data and sources of data needed to support population health goals 9. Demonstrate how various information technology tools and strategies are applied in the practice of population health, including Artificial Intelligence and Machine Learning. 									
Required textbook(s)	J.A Magnuson, Brian E. Dixon: <i>Public Health Informatics and Information Systems: 3rd edition</i>									
Course requirements	Students are required to submit assignments on time, attend classes as indicated in the schedule, and keep up with class announcements via email and class BB									
Teaching methods	(x) Lecture () Group work (x) Independent research () Field work ()Papers () Guest speakers () Student presentations () Case Studies (x) Lab (x) Class discussion () Other _____									
Evaluation	<table style="width: 100%; border: none;"> <tr> <td style="width: 70%;">Weekly Quizzes and class participation</td> <td style="text-align: right;">50%</td> </tr> <tr> <td>Mid Term</td> <td style="text-align: right;">25%</td> </tr> <tr> <td>Final Exam (Individual)</td> <td style="text-align: right;">25%</td> </tr> </table>	Weekly Quizzes and class participation	50%	Mid Term	25%	Final Exam (Individual)	25%			
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Grading Scale	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">A = 94-100</td> <td style="width: 33%;">B = 83-86</td> <td style="width: 33%;">D = 60-69</td> </tr> <tr> <td>A- = 90-93</td> <td>B- = 80-82</td> <td>F = 0-59</td> </tr> <tr> <td>B+ = 87-89</td> <td>C = 70-79</td> <td></td> </tr> </table>	A = 94-100	B = 83-86	D = 60-69	A- = 90-93	B- = 80-82	F = 0-59	B+ = 87-89	C = 70-79	
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<p>Mason Honor Code</p>	<p>The integrity of the University community is affected by the individual choices made by each of us. Mason has an Honor Code with clear guidelines regarding academic integrity. Three fundamental and rather simple principles to follow at all times are that: (1) all work submitted be your own; (2) when using the work or ideas of others, including fellow students, give full credit through accurate citations; and (3) if you are uncertain about the ground rules on a particular assignment, ask for clarification. No grade is important enough to justify academic misconduct. Plagiarism means using the exact words, opinions, or factual information from another person without giving the person credit. Writers give credit through accepted documentation styles, such as parenthetical citation, footnotes, or endnotes. Paraphrased material must also be cited, using MLA or APA format. A simple listing of books or articles is not sufficient. Plagiarism is the equivalent of intellectual robbery and cannot be tolerated in the academic setting. If you have any doubts about what constitutes plagiarism, please see me.</p> <p>Please see the link below to the full read of the 2018-2019 Honor Code:</p> <p>https://oai.gmu.edu/wp-content/uploads/2019/08/George-Mason-University-Honor-Code-2019-2020-final.pdf</p>
<p>Individuals with Disabilities</p>	<p>Disability Services at George Mason University is committed to upholding the letter and spirit of the laws that ensure equal treatment of people with disabilities. Under the administration of University Life, Disability Services implements and coordinates reasonable accommodations and disability-related services that afford equal access to university programs and activities. Students can begin the registration process with Disability Services at any time during their enrollment at George Mason University. If you are seeking accommodations, please visit http://ds.gmu.edu/ for detailed information about the Disability Services registration process.</p> <p>Disability Services is located in Student Union Building I (SUB I), Suite 2500. Email:ods@gmu.edu / Phone: (703) 993-2474</p>
<p>E-mail Policy</p>	<p>Web: masonlive.gmu.edu</p> <p>Mason uses electronic mail to provide official information to students. Examples include notices from the library, notices about academic standing, financial aid information, class materials, assignments, questions, and instructor feedback. Students are responsible for the content of university communication sent to their Mason e-mail account and are required to activate that account and check it regularly. Students are also expected to maintain an active and accurate mailing address in order to receive communications sent through the United States Postal Service.</p>

Mason Diversity Statement	<p>This classroom is an inclusive learning environment that fosters respect for people across identities. We welcome and value individuals and their differences, including gender expression and identity, race, economic status, sex, sexuality, ethnicity, national origin, first language, religion, age and ability. We encourage all members of the learning environment to engage with the material personally, but to also be open to exploring and learning from experiences different than their own. Please see the link below to read the full diversity statement:</p> <p>https://stearnscenter.gmu.edu/knowledge-center/general-teaching-resources/mason-diversity-statement/</p>
Writing Center	<p>Take advantage of the Writing Center as you work on written assignments in this course. You can book free 45- minute appointments with tutors who will work with you on any phase of a writing project. They can provide feedback on a draft, answer your questions, and show you strategies for brainstorming, organizing, drafting, revising, and editing. To schedule an appointment, visit the center's main location in Robinson Hall B 213 or go to writingcenter.gmu.edu, register with the center, and make an appointment using the online scheduler.</p>

Course Schedule (<i>subject to change</i>)	
1/20	<ul style="list-style-type: none"> ● Lecture: Overview of Population Health Informatics ● Review: Slides and introduction on population health informatics ● Introduction to course, syllabus, assignments
1/27	<ul style="list-style-type: none"> ● Lecture: Introduction to Health Informatics ● Review: Slides and research on understanding similarities between PH and HI
2/03	<ul style="list-style-type: none"> ● Lecture: Population Health Data, Information and Knowledge ● Review: Review slides and research the topic of Population Health Data ● Quiz
2/10	<ul style="list-style-type: none"> ● Lecture: Electronic Health Records (EHRs) ● Read: Textbook chapter 11
2/17	<ul style="list-style-type: none"> ● Lecture: Project Management and Population Health Informatics ● Read: Textbook chapters 13 ● Quiz
2/24	<ul style="list-style-type: none"> ● Lecture: Project Management and Population Health Informatics ● Read: Textbook chapters 13 ● Quiz
3/03	Mid Term Review
3/10	<ul style="list-style-type: none"> ● Spring Break

3/17	<ul style="list-style-type: none"> • Mid Term
3/24	<ul style="list-style-type: none"> • Lecture: Public Health Decision Support Systems • Read: Textbook chapter 20
3/31	<ul style="list-style-type: none"> • Lecture: Patient Safety, Quality and Value • Review slides and understand the impact of PH Informatics on patient safety and Quality of care • Quiz
4/07	<ul style="list-style-type: none"> • Lecture: Data Science, Machine Learning and Artificial Intelligence • Review slides and understand the impact of AI/ML on population health • Quiz
4/14	<ul style="list-style-type: none"> • Lecture: Informatics in Population Health Surveillance • Review slides and read textbook chapter 16 • Quiz
4/21	Lecture: Informatics in Disease Prevention and Epidemiology <ul style="list-style-type: none"> • Review slides and read chapter 14 • Quiz
4/28	Review of Final
5/05	Final Exam

Note on Scheduling: Please check your email and the class canvas page the morning of the class for information on cancellations and rescheduling. Syllabus is subject to change and additional information about assignments, readings, and links will be posted on Canvas. Please make sure you check Canvas and your GMU email often.