



Jefferson



Degree Requirements 2026–2027

COLLEGE *of* POPULATION HEALTH



Thomas Jefferson
University

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APPLIED HEALTH ECONOMICS & OUTCOMES RESEARCH

Overview

The [Applied Health Economics & Outcomes Research \(AHEOR\)](#) program is an online program that meets the growing need for professionals to evaluate and measure health outcomes (both physical and humanistic), and to ascertain economic consequences of healthcare interventions by determining optimal clinical effectiveness, comparative effectiveness, and economic value. Graduates are in a position to become national leaders in applied health economics and to influence decision-making through the application of established scientific methods to the allocation of healthcare resources. A graduate certificate and a master's degree in AHEOR are available.

Competencies

Graduates of the graduate certificate program are able to:

- Compare historical trends to current issues in U.S. healthcare organization, delivery, and financing.
- Explore the impact of government policies on health insurance products.
- Examine the strengths and weaknesses of research design and statistical methods in evaluating product or service efficacy.
- Discuss the key concepts and applications of simulations and quantitative modeling in economic evaluations in health care.

Graduates of the master's degree program are able to achieve the above competencies, plus:

- Apply analytic methods (e.g., burden of illness, evidence evaluation, statistics and research design, financial impact, cost-effectiveness, and decision analysis) to inform resource allocation, relative value assessments, and policy initiatives.
- Interpret and apply conceptual frameworks used in HEOR, such as economic metrics (e.g., cost-effectiveness), quality of life evaluations (e.g., utilities and patient-reported outcomes), and healthcare technology assessment evaluations from an international perspective (e.g., budget impact analysis, guidelines, formularies, and utilization incentives and disincentives).
- Conduct and manage HEOR projects in real-world healthcare settings.
- Communicate policy implications to various stakeholders and decisionmakers that reflect AHEOR concepts and techniques.
- Assume leadership roles in the decision process regarding the allocation of healthcare resources.

Curriculum

A graduate certificate in AHEOR requires completion of 15 credits (five 3-credit courses). The master's degree requires completion of 33 credits, comprised of 10 courses and a Capstone experience that is presented to peers and faculty following completion of coursework. All courses taken for the graduate certificate can be applied toward the master's degree. Students can complete the graduate certificate in one to two years and the master's degree in two to four years, depending on their pace through the program and the time it takes to complete the Capstone experience.

There are two track options for the master's degree allowing students to focus their studies in AHEOR. The **Industry Track** will prepare students to manage HEOR research in the industry (e.g., Pharma, Insurance, Payers). It will provide students with information on up-to-date HEOR tools, competencies in HEOR analysis and interpretation, as well as applicability and meaningfulness of HEOR evidence. The **Research Track** will prepare students to conduct HEOR research. It will provide students with strong analytical and statistical competencies.

Industry Track

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
AHE 501	Economics of Health Insurance (3)	
AHE 502	Statistics I (3)	
AHE 504	Economic Modeling I (3)	
AHE 506	Subjective Outcomes in Health Evaluation (3)	
AHE 509	Epidemiology & Evidence for Outcomes Research (3)	
AHE 505	Statistics II (3)	AHE 502
AHE 510	Advanced Research Methods for Applied Observational Studies (3)	AHE 502 or PHS 605
AHE 512	Economic Modeling II (3)	AHE 504
<i>AHE 507</i>	<i>Claims-Based AHEOR (3)</i>	
<i>AHE 508</i>	<i>International Health Technology Assessment: Evaluations & Evidence Generations/Synthesis (3)</i>	AHE 506, AHE 509, AHE 510, AHE 512
<i>AHE 652</i>	<i>Strategic Capstone Portfolio & Presentation (3)</i>	Completion of all courses
Bolded courses are graduate certificate requirements. <i>Italicized</i> courses are specific to the Industry Track.		

Research Track

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
AHE 501	Economics of Health Insurance (3)	
AHE 502	Statistics I (3)	
AHE 504	Economic Modeling I (3)	
AHE 506	Subjective Outcomes in Health Evaluation (3)	
AHE 509	Epidemiology & Evidence for Outcomes Research (3)	
AHE 505	Statistics II (3)	AHE 502
AHE 510	Advanced Research Methods for Applied Observational Studies (3)	AHE 502
AHE 512	Economic Modeling II (3)	AHE 504
<i>HDS 500</i>	<i>Fundamentals of Data Wrangling (3)</i>	AHE 502 or PHS 605
<i>HDS 502</i>	<i>Exploratory Data Analysis & Unsupervised Learning (3)</i>	HDS 500
<i>AHE 652</i>	<i>Capstone Research Project (3)</i>	Completion of all courses
Bolded courses are graduate certificate requirements.		
<i>Italicized</i> courses are specific to the Industry Track.		

Doctor of Pharmacy (PharmD)/Master of Science in Applied Health Economics & Outcomes Research

Jefferson students enrolled in the [Doctor of Pharmacy](#) (PharmD) program in the Jefferson College of Pharmacy have the opportunity to also apply to the MS in Applied Health Economics & Outcomes Research degree program. (PharmD students can apply at any point after entry until the end of their third professional year.) Eligible students need only complete 24 additional credits to earn the MS AHEOR, and nine credits from the PharmD curriculum can be applied to the Master of Science program.

DOCTOR OF HEALTH SCIENCE IN POPULATION HEALTH LEADERSHIP (DHSC)

Overview

The [Doctor of Health Science \(DHSc\) in Population Health Leadership](#) is a hybrid program developed to equip the next generation of population health practitioners with advanced training in implementation science, research methods, and the organization, financing, and delivery of health services. The program content and structure are organized to meet the needs of working professionals seeking to become accomplished leaders in this evolving discipline. The combination of knowledge, skill development, mentoring, and coaching prepares graduates for professional and personal success.

The curriculum is offered as hybrid via online courses, combined with in-person residencies, in a cohort model. The cohort model offers an interprofessional learning environment that is consistent with real-world practice and creates a community of practice among the students. This model is meant to support and facilitate the development of leadership skills, with a focus on implementation and evaluation, strategy, and change management. A master's degree or post-bachelor professional degree (e.g. PharmD, JD, MD, MBA, MHA) is required for entry into the program. Certificate program graduates, who do not also have a graduate degree, are not eligible for admission.

Competencies

Graduates of the DHSc program are able to:

- Assume leadership roles in professional, clinical, academic, or community organizations.
- Apply their knowledge of concepts to lead, inspire, and facilitate the work of interprofessional teams.
- Assess and evaluate issues of strategic importance and offer recommendations based on relevant data.
- Collaborate with key stakeholders to develop and test population health interventions that are informed by relevant models, valid and reliable data, and stakeholder needs.
- Assess the impact and effectiveness of strategic population health improvement plans.

Curriculum

The DHSc in Population Health requires a minimum of 51 credits, which includes 12 online courses, six in-person residencies (two each year), the dissertation proposal, and dissertation.

COURSE #	COURSE NAME (CREDITS)
DHS 750	Beginning Residency I (1)
DHS 711	Payors and Value-Based Care (3)
DHS 700	Descriptive Research Methods (3)
DHS 751	Spring Residency II (1)
DHS 701	Population Health Research Methods (3)
HPL 550	Comparative Health Systems (3)
DHS 702	Population Health Management Strategies (3)
DHS 703	Systematic Reviews & Analysis (3)
DHS 752	Fall Residency III (1)
DHS 704	Population Health Implementation Science I (3)
DHS 707	Concepts of Practice-Based Statistics I (3)
DHS 753	Spring Residency IV (1)
DHS 705	Population Health Implementation Science II (3)
DHS 708	Concepts of Practice-Based Statistics II (3)
DHS 710	Healthcare Leadership Strategies to Drive Change (3)
DHS 706	Academic & Professional Writing (3)
DHS 754	Fall Residency V (1)
DHS 800	Dissertation I (3)
DHS 801	Dissertation II (3)
DHS 755	Final Residency VI (1)
DHS 802	Dissertation III (3)

Dissertation

The Dissertation is the final degree requirement of the doctoral program. Students should adhere to the policies and procedures outlined in the DHSc Dissertation Handbook found under Handbooks & Forms on the [Student Resources](#) page.

HEALTH ARTIFICIAL INTELLIGENCE (AI)

Overview

The rapid integration of artificial intelligence (AI) into healthcare creates an urgent demand for professionals who can bridge technical expertise with health domain knowledge. Earn your MS in Health AI at Thomas Jefferson University - where data science meets real clinical practice across one of the nation's most integrated urban health ecosystems. Healthcare is being rebuilt by AI.

At Thomas Jefferson University, you won't just learn algorithms - you'll learn how to deploy AI in real clinical environments, responsibly and effectively. The Master of Science in Health Artificial Intelligence (AI) will position Jefferson graduates to responsibly implement and evaluate AI solutions that improve health outcomes and advance health system innovation.

This 33-credit asynchronous-online program has been developed for working professionals and traditional students.

In this program, you will:

- Build predictive models for hospital readmissions and patient risk
- Develop AI tools for clinical decision support
- Apply NLP to REAL electronic health records and clinical notes
- Design AI solutions for workflow optimization and care delivery
- Evaluate models through the lens of ethics, bias, and regulation

Competencies

- Critically evaluate the machine learning algorithms that power Artificial Intelligence (AI) systems
- Integrate Artificial Intelligence (AI) into a health organization's decision-making process
- Leverage big-data assets available through electronic medical records and claims data for building Artificial Intelligence (AI) systems
- Master programming languages (e.g., Python, R, etc.) that underpin AI and Machine Learning
- Communicate key data insights and system designs to stakeholders

Curriculum

Our curriculum blends theoretical and technical knowledge with real-world applications of AI in healthcare and beyond. All courses are 3 credits and offered only online in 7-week terms.

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
AHE 502	Statistics I (3)	
POP 500	Essentials of Population Health (3)	
HDS 500	Fundamentals of Data Wrangling (3)	AHE 502 or PHS 605
HAI 501	Health Informatics, Analytics, and AI (3)	
HDS 518	Supervised Learning & Unsupervised Learning: Prediction & Classification (3)	
HAI 527 OR HDS 519	Analytics & AI Leadership (3) Deep Learning & AI Systems (3)	For HDS 519: HDS 502 & HDS 518
HAI 510	Generative AI in Healthcare (3)	
HAI 520	10x Your Productivity with AI (3)	
HAI 511	AI Ethics and Responsibility (3)	
HAI 512	Databases and Data Quality (3)	
HAI 650	Capstone	Completion of all courses

APC in Health Artificial Intelligence (AI) Analytics

The advanced practice certificate in Health Artificial Intelligence (AI) Analytics provides students and healthcare professionals with cutting edge information on managing the influx of AI in Health Analytics. This 9-credit certificate includes courses on how AI affects informatics, analytics, and leadership as well as hands on, approachable training in machine-learning.

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
HAI 501	Health Informatics, Analytics, and AI (3)	
HDS 518	Supervised Learning & Unsupervised Learning: Prediction & Classification (3)	
HAI 527	Analytics & AI Leadership (3)	

HEALTH DATA SCIENCE

Overview

Health Data Science (HDS) is an ever-evolving multi-disciplinary field that involves using statistical inference, algorithmic development, and technology to make insights about data. The [Health Data Science program](#) prepares graduates to be successful in the ever-changing healthcare environment that is driven by data and analytics. The program prepares to conduct research and help organizations gain insight from their data using machine learning, data visualization, statistics, and data management. It will provide students with the strong data wrangling, statistical, and predictive analytics competencies needed to work on HDS projects.

Competencies

The HDS program prepares graduates to be successful in the ever-changing healthcare environment that is driven by data and analytics by preparing them to:

Graduate Certificate

- Explores the vital roles of data, information and information systems in the implementation and evaluation of healthcare and value-based care initiatives
- Provides a comprehensive overview of data science, the practice of obtaining, modeling and interpreting data
- Adopt data visualization techniques that contribute to effective presentations and dashboards
- Provides a foundation for population health beginning with a working definition, incorporating public health science and policy.

Master's Degree (above, plus)

- Evaluate and apply multivariate statistical methodologies for various study designs of efficiency and effectiveness in healthcare
- Learn key programming techniques for data wrangling, statistical modeling and predictive analytics
- Learn advanced data science methods including supervised and unsupervised learning algorithms
- Conduct HDS research in real-world healthcare settings

Curriculum

The master's degree requires completion of 33 credits, comprised of 10 courses and a Capstone Research Project. The final capstone is presented to peers and faculty following completion of coursework. A graduate certificate in Health Data Science requires completion of 15 credits (five 3-credit courses). All courses taken for the graduate certificate can be applied toward the master's degree. Students can complete the graduate certificate in one to two years and the master's degree in two to four years depending on their pace through the program and the time required to complete the Capstone course.

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
AHE 501 or POP 500	AHE 501 Economics of Health Insurance (3) OR POP 500 Essentials of Population Health (3)	
AHE 502	Statistics I (3)	
HAI 501	Health Informatics, Analytics, and AI (3)	
HDS 518	Supervised Learning & Unsupervised Learning: Prediction & Classification (3)	
HDS 532	Data Visualization (3)	
AHE 505	Statistics II (3)	AHE 502
HDS 500	Fundamentals of Data Wrangling (3)	AHE 502 or PHS 605
HDS 502	Exploratory Data Analysis & Unsupervised Learning (3)	HDS 500
HDS 519	Deep Learning & AI Systems (3)	HDS 502 and HDS 518
Elective	With Program Director Approval (3)	Approval Needed
HDS 651	Capstone Research Project	Completion of all courses
Bolded courses are graduate certificate requirements.		

HEALTH INNOVATION LEADERSHIP

Overview

- **Innovative Leadership & Strategic Framing:** Discover what it takes to be an innovation leader while mastering the art of root-cause diagnosis. Learn to frame complex problems accurately, develop value propositions that tackle the root cause, and communicate them with persuasive clarity.
- **Founding Teams & Rapid Development:** Build and lead the best team for your mission. Transition from insight to action through foundational design sprints and rapid prototyping to develop viable, clinically integrated solutions.
- **High-Performance Collaboration:** Master the interpersonal modalities required for innovation. Learn the basics of product and project management to set up your own opportunities and help others set up theirs, while using advanced feedback loops to build cohesive, high-performing teams.
- **Scaling, Funding & Sustainable Impact:** Learn the mechanics of taking a validated prototype to the next level. Focus on scaling strategies and funding models that ensure long-term success and institutional or market impact.
- **Multi-Perspective Evaluation & Reflection:** Reflect on the innovation process and evaluate ideas through clinical, financial and operational lenses. Build the versatile skill sets needed to engage with innovation in diverse leadership roles.
- **Innovation Leader Playbook (Integrative):** Graduate with a professional, board-ready portfolio containing three validated project designs, bridging the gap between clinical bedside and executive leadership.

Competencies

After completing the program, students will be prepared to:

- Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health
- List major causes and trends of morbidity in the US
- Discuss the science of primary, secondary, and tertiary prevention in population health, including health promotion, screening, etc.
- Explain the critical importance of evidence in advancing public health knowledge
- Apply epidemiological methods to settings and situations in public health practice
- Select quantitative and qualitative data collection methods appropriate for a given public health context

- Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate
- Interpret results of data analysis for public health research, policy or practice

Curriculum

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
HIL 501	Sparkling Innovation: From Insight to Opportunity (3)	
HIL 502	Building the Solution: From Opportunity to Prototype (3)	
HIL 503	Leading the Change: From Prototype to Impact (3)	

HEALTH RESEARCH METHODS

Overview

The Health Research Methods Graduate Certificate is designed for students (faculty, staff and clinicians) who are seeking research skills, specifically in study design, data collection and analysis. Students will acquire foundational skills through three required courses (9 credits) and then choose electives (6 credits) that will allow them to tailor their individual research goals. Each student will be assigned to a research mentor who will serve as an advisor and as needed, will facilitate connections with mentors, content experts and methodologists. Faculty, staff and clinicians come to the college for research guidance regularly and this would provide a formal mechanism for training. Courses can be applied toward the [Master of Public Health](#) upon successful completion.

Competencies

After completing the program, students will be prepared to:

- Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health
- List major causes and trends of morbidity in the US
- Discuss the science of primary, secondary, and tertiary prevention in population health, including health promotion, screening, etc.
- Explain the critical importance of evidence in advancing public health knowledge
- Apply epidemiological methods to settings and situations in public health practice
- Select quantitative and qualitative data collection methods appropriate for a given public health context
- Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate
- Interpret results of data analysis for public health research, policy or practice

Curriculum

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
PBH 504	Fundamentals of Statistics for Research (3)	
PBH 510	Health Research Methods (3)	
PBH 506	Fundamentals of Epidemiology (3)	
Electives	(6)	
Bolded courses are Advanced Practice Certificate (APC) requirements		

HEALTHCARE ADMINISTRATION (MHA)

Overview

The [Master of Healthcare Administration \(MHA\)](#) program provides graduate training in modern healthcare administration. The program is designed to prepare graduates for leadership and management positions aimed at improving health service delivery across all sectors, including provider, payor and integrated organizations. The program is 50-credits and offers concentrations in Healthcare Leadership & Operations Management, Health Informatics & Digital Transformation, Population Health Management, Healthcare Quality & Patient Safety, and Global Health & Health Equity.

Competencies

The MHA program at Jefferson College of Population Health (JCPH) has adopted the National Center for Healthcare Leadership (NCHL)© competency model, and the courses' objectives align with their competencies.

The NCHL Competency Model v 3.0© lists 7 domains and 28 Core Competencies. The first group are the action competencies.

Boundary Spanning:

Optimizing relationships between a leader's span of control and the departments, organizations, communities, and/or broader networks within which it operates.

- Community Collaboration
- Organizational Awareness
- Relationship & Network Development

Execution:

Translating vision and strategy into actions supporting optimal organizational performance.

- Accountability
- Achievement Orientation
- Analytical Thinking
- Communication Skills 1 – Writing
- Communication Skills 2 – Speaking & Facilitating
- Initiative
- Performance Measurement
- Process & Quality Improvement

- Project Management

Transformation:

Creating and implementing compelling and inclusive change processes in support of improving health quality, efficiency, and access.

- Change Leadership
- Information Seeking
- Innovation
- Strategic Orientation

Relations:

Leading, through example and actions, to create an organizational climate that values employees from all backgrounds, provides a healthy and energizing environment in which to work, and encourages everyone's ongoing development.

- Collaboration
- Impact & Influence
- Interpersonal Understanding
- Talent Development
- Team Leadership

The second group comprise the enabling competency domains.

Health System Awareness & Business Literacy:

- Financial Skills
- Human Resource Management
- Information Technology Management

Self-Awareness & Self-Development:

- Self-Awareness
- Self-Confidence
- Well-Being

Values:

- Professional & Social Responsibility

Accreditation

The Jefferson College of Population Health Master of Healthcare Administration (MHA) program is currently engaged in the process of applying for candidacy with the Commission on Accreditation of Healthcare Management Education (CAHME). CAHME is a programmatic accrediting agency that conducts accreditation activities for professional programs in healthcare management at the master's level from degree-granting institutions. CAHME is recognized by the Council for Higher Education Accreditation (CHEA).

Thomas Jefferson University is accredited by [The Middle States Commission on Higher Education](#).

Curriculum

The Master of Healthcare Administration (MHA) is a 50-credit degree requiring the completion of 27 credits of core courses, 9 credits in concentration courses, 9 credits comprising practicums and 5 credits from live virtual cohorts and interactive experiences. There are part-time and fulltime options.

COURSE #	COURSE NAME (CREDITS)	Length in Weeks
Year 1:		
Fall		
OPX 550	Fundamentals of Six Sigma DMAIC (3)	15
OPX 520	Change Management (3)	7
POP 510	Health Economics, Risk, & Finance (3)	7
MHA 621	Applied Principles of Leadership Development I (1)	15 weeks
Spring		
MHA 701	Practicum I (3)	15
OPX 530	Applied Leadership Strategies for Effective Change (3)	7
MHA 520	Fundamentals of Practice-Based Statistics (3)	7
MHA 622	Applied Principles of Leadership Development II (1)	15 weeks
Summer		
MBX 715	Managerial Economics (3) (Kanbar)	7
MBX 716	Fundamentals of Accounting and Finance (3) (Kanbar)	7
Concentration Elective	With Program Director Approval (3)	7-15
MHA 623	Applied Principles of Leadership Development III (1)	15 weeks
Year 2:		
Fall		
MHA 702	Practicum II (3)	15
Concentration Elective	With Program Director Approval (3)	7-15
MBX 604	Business Model Innovation (3) (Kanbar)	8

COURSE #	COURSE NAME (CREDITS)	Length in Weeks
MHA 624	Applied Principles of Leadership Development IV (1)	15 weeks
Spring		
MHA 703	Practicum III (3)	15
MBX 602	Managing Innovative People and Teams (3) (Kanbar)	8
Concentration Elective	With Program Director Approval (3)	7-15
MHA 625	Applied Principles of Leadership Development V (1)	15 weeks

Concentration options available in Healthcare Leadership and Operations Management, Healthcare Quality and Patient Safety, Population Health Management, Global Health & Health Equity, and Health Informatics & Digital Transformation.

COURSE #	COURSE NAME (CREDITS)	Length in Weeks
Healthcare Leadership & Operations Management		
OPX 531	Evaluating Healthcare Organizations (3)	7
OPX 535	Strategic Execution (3)	7
HQS 504	High Reliability (3)	7
Healthcare Quality & Patient Safety		
HQS 500	Introduction to Healthcare Quality & Safety (3)	7
HQS 509	Applied Principles of Healthcare Quality (3)	7
HQS 512	Business Case for Quality (3)	7
Population Health Management		
POP 500	Essentials of Population Health (3)	7
POP 506	Value-Based Care (3)	7
HAI 501	Health Informatics, Analytics, and AI (3)	7
Global Health & Health Equity		
PBH 502	Society, Behavior, & the Environment (3)	12
PBH 501	Foundations of Public Health (3)	12
PBH 515	Cultural Humility & Competence (3)	12
Health Informatics & Digital Transformation		
HDS 532	Data Visualization (3)	7
HAI 501	Health Informatics, Analytics, and AI (3)	7
HAI 527	Analytics & AI Leadership (3)	7

Master of Healthcare Administration (MHA)/Doctor of Medicine (MD)

Jefferson's Master of Healthcare Administration (MHA) also offers a dual-degree option for Sidney Kimmel Medical College students pursuing an MD. [The Master of Healthcare Administration \(MHA\)/Doctor of Medicine \(MD\)](#) dual degree equips future physicians with advanced leadership and healthcare management skills, preparing them to navigate complex health systems and drive organizational improvement alongside clinical practice. Foundations of Medicine courses are transferred to apply 12 credits towards the MHA degree. SKMC students usually complete two rotations of Phase 3 before stepping out of medical school to complete the

MHA coursework. Students return to Phase 3 at SKMC the following July. Both degrees (MD and MHA) are conferred the following May.

HEALTHCARE QUALITY & SAFETY

Overview

The Jefferson College of Population Health's [Healthcare Quality and Safety \(HQS\) program](#) is accredited by the [Commission on Accreditation of Healthcare Management Education](#) (CAHME), the specialized accrediting body recognized by the [Council for Higher Education Accreditation](#) (CHEA) as the only accrediting body for healthcare management programs at the master's level. CAHME accreditation only applies to the HQS master's degree program; it does not apply to the Advanced Practice Certificates (APC) or graduate certificate.



The [Healthcare Quality & Safety \(HQS\) program](#) offers a variety of options. A graduate certificate in HQS requires completion of 15 credits (five 3-credit courses). The master's degree requires completion of 33 credits, comprising 10 courses and a Capstone that is presented to peers and faculty following completion of coursework. There are also options for an Advanced Practice Certificate (APC) which consist of three 3-credit courses.

Competencies

Program Competency	PC Description
Leadership	Apply management and leadership techniques for developing and implementing a strategic approach to healthcare quality and safety.
Complex Adaptive Systems	Interpret and account for internal and external factors that influence structure, process, and outcomes.
Change Management	Integrate change management tools and principles for organizational transformation.
Improvement Science	Design and implement performance improvement strategies for healthcare quality and safety.
Program Evaluation	Evaluate systematic approaches for driving clinical or performance outcomes for targeted populations.
Governance	Assess and respond to applicable legal factors, regulatory mechanisms, and other governing bodies that influence healthcare quality and safety.

Professionalism, Ethics and Transparency	Foster a culture of openness and trust by integrating professional accountability, transparency, and ethical decision-making in support of patient and family-centered care.
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Curriculum

Healthcare Quality & Safety

The Master of Science in HQS requires completion of 33 credits (10 courses and a Capstone). The Capstone is presented to peers and faculty following completion of coursework and the Capstone manuscript. A graduate certificate in HQS (15 credits) is available and all courses taken for the graduate certificate can be applied toward the master's degree. Students can complete the graduate certificate in one to two years and the master's degree in two to four years depending on their pace through the program and the time required to complete the Capstone.

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
HQS 500	Introduction to Healthcare Quality & Safety (3)	
HQS 509	Applied Principles of Healthcare Quality (3)	
OPX 530	Applied Leadership Strategies for Effective Change (3)	
HQS 505	Advanced Tools & Methods for HQS (3)	
HQS 504	High Reliability (3)	
OPX 520	Change Management (3)	
HQS 512	Business Case for Quality (3)	
HQS 506	Strategic Adaptation in HQS (3)	
HQS 507	Advanced Applications of HQS in Clinical Settings (3)	Completion of all other coursework
Elective	With Program Director Approval (3)	Approval Needed
HQS 650	Capstone (3)	Completion of all coursework
Bolded courses are graduate certificate requirements		
See website for most up-to-date course waiver information		

Advanced Practice Certificate (APC) – Healthcare Quality & Safety

All courses apply toward the graduate certificate and master's degree.

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
HQS 500	Introduction to Healthcare Quality & Safety (3)	
OPX 530	Applied Leadership Strategies for Effective Change (3)	
HQS 504	High Reliability (3)	
See website for most up-to-date course waiver information		

Advanced Practice Certificate (APC) – Quality Improvement & Patient Safety Leadership Development (QIPS) Track

This track of the APC in HQS includes focused coursework, live virtual monthly sessions, and a mentored project designed to align improvement work with the students’ practice goals and their organizations’ business priorities. All courses apply toward the master’s degree.

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
OPX 520	Change Management (3)	
HQS 509	Applied Principles of Healthcare Quality (3)	
HQS 505	Tools & Methods for HQS (3)	
See website for most up-to-date course waiver information		

Additional Elective Options

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
HQS 550	CPHQ® Certification (3)	
OPX 525	Executing Lean Improvements (3)	
OPX 532	Project Management Essentials (3)	
OPX 550	Fundamentals of Six Sigma DMAIC (3)	Additional fee
POP 500	Essentials of Population Health (3)	
POP 502	Population Health in Diverse Communities (3)	
POP 506	Value-Based Care (3)	

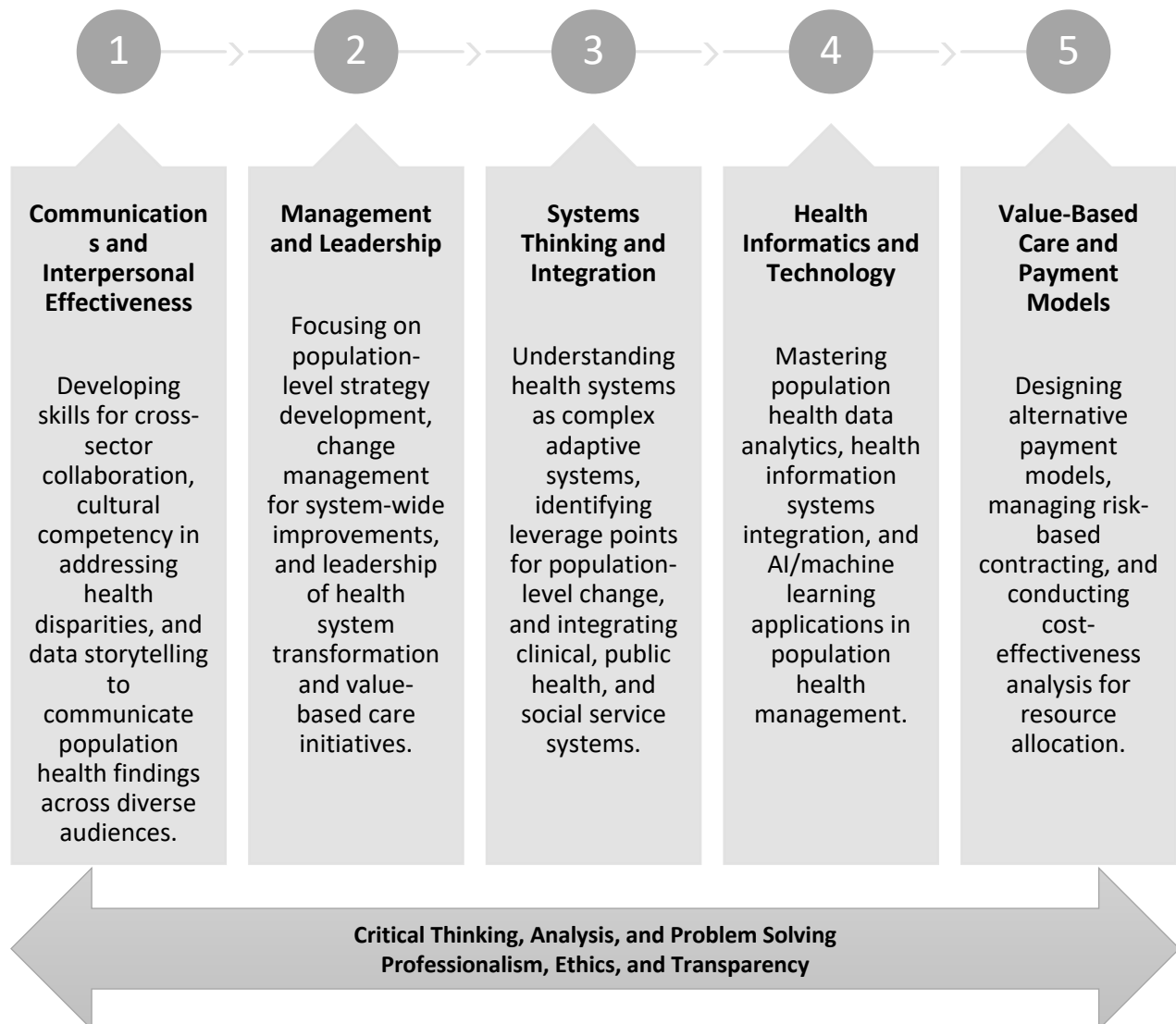
POPULATION HEALTH

Overview

The [Population Health](#) (POP) program offers additional skills required for leadership positions in value-based care, improving the health of managed populations, and policy and advocacy. The Population Health program is designed for experienced health executives and practitioners, but welcomes individuals with an interest in Population Health who do not yet have experience. A graduate certificate and master's degree are available in Population Health as well as an Advanced Practice Certificate (APC).

Competencies

Our competency framework addresses the critical challenges of today and tomorrow:



Accreditation

Thomas Jefferson University is accredited by [The Middle States Commission on Higher Education](#).

The Population Health program is certified by the [Commission on Accreditation of Healthcare Management Education \(CAHME\)](#), the specialized accrediting body recognized by the [Council for Higher Education Accreditation \(CHEA\)](#) as the only accrediting body for healthcare management programs at the master's level. CAHME certification only applies to the Population Health master's degree program; it does not apply to the Advanced Practice Certificate (APC) or graduate certificate.

CAHME certifies and accredits programs in Population Health Management. Certification is the penultimate step before accreditation. Accredited status is a mark of quality. It is also an indication that a program in population health has committed to participate in the establishment of distinct accreditation standards for master's level population health education.

Curriculum

The master's degree requires completion of 33 credits, comprising 10 courses and a Capstone that is presented to peers and faculty following completion of coursework. A graduate certificate in Population Health requires completion of 15 credits (five 3-credit courses). All courses taken for the graduate certificates can be applied towards the master's degree. Students can complete the graduate certificate in one to two years and the master's degree in two to four years depending on their pace through the program and the time required to complete the Capstone. There is also an option for an Advanced Practice Certificate (APC) which consists of three 3-credit courses, all of which apply to the master's degree.

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
POP 500	Essentials of Population Health (3)	
POP 510	Health Economics, Risk, & Finance (3)	
POP 560	Population Health Leadership & Strategic Management (3)	
POP 501	Population Health Analytics, Informatics, & Digital Health (3)	
Elective	With Program Director Approval (3)	Approval Needed
POP 502	Population Health in Diverse Communities (3)	
POP 506	Value-Based Care (3)	
POP 512	Health Policy & Program Management (3)	
POP 525	Emerging Trends in Population Health (3)	
POP 507	Advanced Applications of Population Health	Completion of all other coursework
POP 650	Capstone (3)	Completion of all courses
Bolded courses are graduate certificate requirements		
See website for most up-to-date course waiver information		

Advanced Practice Certificate (APC) – Population Health

The three courses in the APC may be used to apply toward the graduate certificate or the master's degree.

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
POP 500	Essentials of Population Health (3)	
POP 510	Health Economics, Risk, & Finance (3)	
POP 560	Population Health Leadership & Strategic Management (3)	

Additional Elective Options

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
HQS 550	CPHQ® Certification (3)	
OPX 525	Executing Lean Improvements (3)	
OPX 532	Project Management Essentials (3)	
OPX 550	Fundamentals of Six Sigma DMAIC (3)	Additional fee
HQS 500	Introduction to Healthcare Quality & Safety (3)	
OPX 530	Applied Leadership Strategies for Effective Change (3)	
HQS 504	High Reliability (3)	
OPX 520	Change Management (3)	

POPULATION HEALTH SCIENCE (PHD)

Overview

The [Population Health Science](#) program is a hybrid doctoral (PhD) program. The doctoral program prepares leaders to analyze the determinants of health and to develop, implement, and evaluate health interventions, policies, and systems that improve the health and quality of life of populations. More specifically, the PhD program prepares leaders to be scholars, researchers, educators, and practitioners in core aspects of population health. A master's degree or post-bachelor professional degree (e.g. PharmD, JD, MD) is required for entry into the PhD program. Certificate program graduates are not eligible for admission. Students in the Population Health Science program specialize in one of five areas: Applied Health Economics & Outcomes Research, Health Behavior Science, Health Data Science, or Healthcare Quality & Safety.

Competencies

Graduates of the PhD program are able to:

- Demonstrate advanced knowledge and application of population health frameworks and concepts.
- Apply knowledge of the structures, performance, quality, policy, and environmental context of healthcare to the formulation of solutions to, and prevention of, population health problems.
- Formulate population health research questions that are informed by relevant theoretical and conceptual models; systematic reviews of the literature; valid, reliable, and generalizable data; and stakeholder needs.
- Select appropriate study designs to address specific population health research questions.
- Collect, analyze, and/or interpret data obtained either prospectively (by survey, surveillance, qualitative, or mixed methods) or retrospectively through existing public and private sources to identify determinants of health.
- Conduct ethical and responsible research in the design, implementation, and dissemination of population health research through implementation of research protocols with standardized procedures.
- Apply appropriate design and analytic methods to clarify associations between variables and to identify causal inferences.
- Communicate findings and implications of population health science research through multiple modalities to academic, professional, and lay audiences.

Curriculum

The PhD in Population Health Science requires a minimum of 62 credits, including the comprehensive examination, dissertation proposal, and dissertation. Courses are offered both in-person and online.

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
Core Coursework – Methods (12)		
PHS 605	Statistical Foundation for the PhD (3)	
PBH 606	Advanced Epidemiology (3) or	PBH 504 & PBH 506 OR PHS 605 (for PBH 606)
AHE 509	Epidemiology & Evidence for Outcomes Research (3) <i>Required for AHEOR Specialization</i>	
PHS 615	Advanced Regression & Multilevel Models (3)	PHS 605
PHS 650	Evaluative & Outcomes Research & Design (3) or	AHE 502 or PHS 605 (for AHE 510)
AHE 510	Econometric & Observational Methods (3) <i>AHEOR Specialization only</i>	
Core Coursework – Population Health Fundamentals (16)		
PBH 500	Foundations of the U.S. Healthcare System (3)	
POP 500	Essentials of Population Health (3)	
AHE 501	Economics of Health Insurance (3)	
PBH 502	Society, Behavior, & the Environment (3)	
PHS 602	Bioethics (1)	
PHS 620	Teaching & Learning Seminar (3)	
Integrative Research (4)		
PHS 700	Integrative Research Seminar (1)	
Mentored Research (3)		
PHS 660	Mentored Research Experience (1)	Approval by Program Director
Specialization Coursework (15)		
<i>Applied Health Economics & Outcomes Research (AHEOR) Specialization Coursework</i>		
AHE 504	Economic Modeling I (3)	
AHE 506	Subjective Outcomes in Health Evaluation (3)	
AHE 512	Economic Modeling II (3)	AHE 504
AHE 507	Claims-Based AHEOR (3)	
AHE 508	International Health Technology Assessment: Evaluations & Evidence Generations/Synthesis (3)	AHE 506, AHE 509, AHE 510, AHE 512
PHS 650	Evaluative & Outcomes Research & Design (3)	
HDS 500	Fundamentals of Data Wrangling (3)	AHE 502 or PHS 605
HDS 502	Exploratory Data Analysis & Unsupervised Learning (3)	HDS 500
HDS 518	Supervised Learning & Unsupervised Learning: Prediction & Classification (3)	

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
<i>Health Behavior Science Specialization Coursework</i>		
PBH 512	Qualitative Research Methods (3)	
PBH 515	Cultural Humility & Competence (3)	
PBH 602	Advanced Social & Behavioral Theories & Interventions (3)	PBH 502
AHE 506	Subjective Outcomes in Health Evaluation (3)	
HDS 538	Implementation Science (3)	
<i>Health Data Science Specialization Coursework</i>		
AHE 504	Economic Modeling I (3)	
AHE 512	Economic Modeling II (3)	AHE 504
HDS 500	Fundamentals of Data Wrangling (3)	AHE 502 or PHS 605
HDS 502	Exploratory Data Analysis & Unsupervised Learning (3)	HDS 500
HDS 532	Data Visualization (3)	
HDS 518	Supervised Learning & Unsupervised Learning: Prediction & Classification (3)	
HDS 519	Deep Learning & AI Systems (3)	HDS 502 and HDS 518
<i>Healthcare Quality & Safety Specialization Coursework</i>		
HQS 500	Introduction to Healthcare Quality & Safety (3)	
HQS 505	Advanced Tools & Methods for HQS (3)	
HQS 507	Advanced Applications of HQS in Clinical Settings (3)	HQS 500, HQS 509
HQS 509	Applied Principles of Healthcare Quality (3)	
HQS 512	Business Case for Quality (3)	
OPX 520	Change Management (3)	
Examination & Dissertation (12)		
PHS 800	Comprehensive Exam Prep (1)	All Core Coursework & 3 credits PHS 700
PHS 801	Comprehensive Exam (1)	PHS 800
PHS 805	Dissertation Proposal Seminar (3)	PHS 801
PHS 807	Dissertation Proposal Defense (1)	PHS 805
PHS 810	Dissertation Progress (3)	PHS 807
PHS 811	Final Dissertation Defense (3)	PHS 810
See website for most up-to-date course waiver information		

MPH to PhD in Population Health Science (<i>Health Behavior Science concentration only</i>) (27 credits)
See details in Public Health section

Comprehensive Examination

The Comprehensive Examination is composed of two parts:

- **Part I** is a written, open-book, non-monitored test consisting of several essays on key areas in population health
- **Part II** is a written, open-book, non-monitored research proposal

Students should adhere to the policies and procedures outlined in the PhD Comprehensive Examination and Dissertation Handbook located under Handbooks & Forms on the [Student Resources](#) page.

Dissertation

The Dissertation is the final degree requirement of the doctoral program. Students should adhere to the policies and procedures outlined in the PhD Comprehensive Examination and Dissertation Handbook located under Handbooks & Forms on the [Student Resources](#) page.

PUBLIC HEALTH

Overview

The [Public Health](#) program offers both an on-site and an online delivery option. The comprehensive public health curriculum trains students to be practitioners in community, government, research, non-profit, and clinical settings. The program is committed to multi-disciplinary experiential education, research, practice, and service.



The Jefferson College of Population Health (JCPH) offers a **Master of Public Health (MPH)** degree, which is nationally accredited through the [Council on Education for Public Health \(CEPH\)](#). Students develop competencies in several key public health areas: health behavior and social sciences, biostatistics, environmental health, epidemiology, policy and advocacy, program planning, implementation and evaluation, and others. The interdisciplinary curriculum stresses leadership skills, systems thinking, health communication, global health, and cultural humility and competency.

Students can complete the MPH in several ways:

- Accelerated– Students on this pathway will earn the degree in one academic year. All accelerated students enter the program in the fall (end of August or early September) and take courses on a full-time basis. This pathway is ideal for future healthcare professionals who plan to take a gap year while applying to medical school.
- Full-time/Part-time – This pathway is ideal for students planning to practice public health and take the lead in promoting health across siloes. Students can enter the program in any semester and may be either full-time or part-time.
- Dual Degree – Dual degree options allow students to apply coursework from other degree programs to the Jefferson MPH. Currently, the Public Health program offers several dual degrees, each with their own specific timeline.
- Advanced Standing – This pathway provides graduates with a terminal degree (for example, MD, DO, PhD, JD, DHSc, DSW, DDM) from an accredited graduate school with the opportunity to pursue an MPH. Students can earn a degree either on a full- or part-time basis.
- Bridge/4+1 – Undergraduate students at our partner institutions may start the MPH during their junior or senior year. These courses are also applied to their undergraduate degree.

The Public Health program offers four engaging concentration options. Each concentration offers elective course options that address specific competencies. Depending on their concentration, students take 4 or 5 required concentration courses as well as one or two “free choice” courses. Students in the Generalist concentration take 6 electives. Students will work with their academic advisors to declare a concentration.

1. **Epidemiology and Data Analytics** focuses on bolstering students' epidemiological and statistical expertise through advanced coursework giving students the ability to collect, analyze, interpret, and visualize data.
2. **Public Health Policy & Advocacy** gives students the skillset to promote public health policy at the local, state, federal, and international levels.
3. **Healthcare Quality & Safety** focuses on integrating public health knowledge and skills in the clinical space. This concentration is particularly of interest to students currently in or intending to enter the medical field.
4. The **Public Health Practice (Generalist)** concentration gives students the most freedom to choose electives that appeal to them. Academic advisors will support students in determining which electives support their career goals.

Competencies

The [Council on Education for Public Health](#) has identified the essential knowledge and skills needed in public health practice, education and research. The JCPH Public Health program uses these competencies to guide curriculum development and assess student learning. Every course in the program links these competencies to graded assignments allowing faculty and students to assess competency attainment. Students in the Public Health program will demonstrate attainment of the following competencies:

Public Health Knowledge

D1.1	Explain public health history, philosophy, and values
D1.2	Identify the core functions of public health and the 10 Essential Services
D1.3	Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health
D1.4	List major causes and trends of morbidity and mortality in the U.S. or other community relevant to the College or public health program
D1.5	Discuss the science of primary, secondary, and tertiary prevention in population health, including health promotion, screening, etc.
D1.6	Explain the critical importance of evidence in advancing public health knowledge
D1.7	Explain effects of environmental factors on a population's health
D1.8	Explain biological and genetic factors that affect a population's health
D1.9	Explain behavioral and psychological factors that affect a population's health
D1.10	Explain the social, political, and economic determinants of health and how they contribute to population health and health inequities
D1.11	Explain how globalization affects global burdens of disease
D1.12	Explain an ecological perspective on the connections among human health, animal health, and ecosystem health (e.g., One Health)

Foundational Competencies

D2.1	Apply epidemiological methods to settings and situations in public health practice
D2.2	Select quantitative and qualitative data collection methods appropriate for a given public health context

D2.3	Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate
D2.4	Interpret results of data analysis for public health research, policy, or practice
D2.5	Compare the organization, structure, and function of health care, public health, and regulatory systems across national and international settings
D2.6	Discuss the means by which structural bias, social inequities, and racism undermine health and create challenges to achieving health equity at organizational, community, and systemic levels
D2.7	Assess population needs, assets, and capacities that affect communities' health
D2.8	Apply awareness of cultural values and practices to the design, implementation, or critique of public health policies or programs
D2.9	Design a population-based policy, program, project, or intervention
D2.10	Explain basic principles and tools of budget and resource management
D2.11	Select methods to evaluate public health programs
D2.12	Discuss the policy-making process, including the roles of ethics and evidence
D2.13	Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes
D2.14	Advocate for political, social, or economic policies and programs that will improve health in diverse populations
D2.15	Evaluate policies for their impact on public health and health equity
D2.16	Apply leadership and/or management principles to address a relevant issue
D2.17	Apply negotiation and mediation skills to address organizational or community challenges
D2.18	Select communication strategies for different audiences and sectors
D2.19	Communicate audience-appropriate (i.e., non-academic, non-peer audience) public health content, both in writing and through oral presentation
D2.20	Describe the importance of cultural competence in communicating public health content
D2.21	Integrate perspectives from other sectors and/or professions to promote and advance population health
D2.22	Apply a systems thinking tool to visually represent a public health issue in a format other than standard narrative

Concentration-Specific Competencies

Students will attain additional competencies dependent on their declared concentration.

Healthcare Quality & Safety

- Assess healthcare quality and safety issues in specific populations using the National Academy of Medicine's (formerly IOM) Quality Aims.
- Develop a quality improvement plan.
- Demonstrate the use of tools and methods to measure and improve processes, behavior, and outcomes.
- Develop a strategy for identifying, prioritizing, and mitigating causes of medical errors.

- Assess team effectiveness in managing patient safety.
- Develop a project management plan.
- Identify, critically review, assess, and synthesize the scientific evidence behind a specific public health challenge related to your concentration.

Epidemiology & Data Analytics

- Apply ethical and legal principles to the collection, analysis, protection, maintenance, use, and dissemination of study results and related information.
- Construct, change, and display GIS maps in presentations and reports using provided software.
- Design effective, clear, and accessible graphics and related materials, to enhance the translation and communication of public health science.
- Design and conduct a quantitative research project, resulting in a paper of publishable quality, and an oral presentation.
- Plan and conduct a qualitative research project. Manage data, analyze findings, and generate an exhibit for public display and report for key stakeholders.
- Identify, critically review, assess, and synthesize the scientific evidence behind a specific public health challenge related to your concentration.

Public Health Policy & Advocacy

- Estimate the economic impact of health policy implementation
- Create a policy evaluation plan
- Assess an organization's social media strategy to support policy change at the local, state, federal or organizational level
- Examine the constructs of an environmental justice community
- Estimate the economic impact of health policy implementation
- Identify, critically review, assess, and synthesize the scientific evidence behind a specific public health challenge related to your concentration.

Public Health Practice (Generalist)

- Students, in consultation with their academic advisor, identify concentration competencies based on the electives they choose/plan to take.
- Identify, critically review, assess, and synthesize the scientific evidence behind a specific public health challenge related to your concentration.

Nursing & Public Health

- Examine the feasibility and sustainability of a theory-based program.
- Plan and conduct a qualitative research project. Manage data, analyze findings, and generate an exhibit for public display and report for key stakeholders.
- Demonstrate cultural humility, respect, and meaningful representation of marginalized groups in data collection, data organization, and presentation of results.
- Critique proposals for population health programs.
- Apply statistical methods for the determination of the structure of a measurement instrument.
- Identify, critically review, assess, and synthesize the scientific evidence behind a specific public health challenge related to your concentration.

Curriculum

The public health program requires the completion of 45 credits including a Clerkship-Applied Practice Experience (C-APE) and Capstone-Integrative Learning Experience (C-ILE).

“Free Choice” electives may be any elective offered across all concentrations. For example, a student in the Public Health Policy and Advocacy concentration takes 2 “free choice” electives in addition to the required concentration courses. The student may choose to take a GIS mapping course and a global health course from the Public Health Practice (Generalist) concentration as the “free choice” electives.

Students must officially declare their concentration by completing a two (2) step process. Students will fill out the [concentration declaration](#). After that is completed, students will receive a confirmation email which should be checked for accuracy and then forwarded to the Assistant Director, MPH Program, and the Senior Director, Academic Operations.

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
MPH including Full/Part time, Accelerated, Bridge/4+1 (any concentration)		
PBH 500	Foundations of the US Healthcare System (3)	
PBH 501	Foundations of Public Health (3)	
PBH 502	Society, Behavior & the Environment (3)	
PBH 504 Or PBH 505	Fundamentals of Statistics for Research (3) Fundamentals of Statistics for Practice (3)	
PBH 506	Fundamentals of Epidemiology (3)	
PBH 510	Health Research Methods (3)	
PBH 513	Public Health Law & Ethics (3)	

PBH 520	Program Planning, Implementation & Evaluation (3)	
	Concentration Requirements / Electives (18)	
PBH 611 PBH 612	Accelerated Capstone-ILE Part 1 (2) and Accelerated Capstone-ILE, Part 2 (1) <i>Accelerated only</i>	PBH 510*
PBH 613 PBH 614	Or Capstone-ILE, Part 1 (3) and Capstone-ILE, Part 2 (0)	PBH 510*
PBH 651	Clerkship – Applied Practice Experience (C-APE) (0)	At least 15 credits
MD/MPH, DO/MPH, and Advanced Standing (<i>any concentration</i>)		
PBH 500	Foundations of the US Healthcare System (3)	
PBH 502	Society, Behavior & the Environment (3)	
PBH 504	Fundamentals of Statistics for Research (3)	
PBH 506	Fundamentals of Epidemiology (3)	
PBH 510	Health Research Methods (3)	
PBH 513	Public Health Law & Ethics (3)	
PBH 660	Clinical Public Health (0)	
	Electives (12)	
PBH 613 PBH 614	Capstone-ILE, Part 1 (3) and Capstone-ILE, Part 2 (0)	PBH 510*
PBH 651	Clerkship-Applied Practice Experience (0)	At least 15 credits
	Transferred credits (12)	
MSS/MPH (<i>Public Health Practice (Generalist)</i>)		
PBH 500	Foundations of the US Healthcare System (3)	
PBH 501	Foundations of Public Health (3)	
PBH 502	Society, Behavior & the Environment (3)	
PBH 506	Fundamentals of Epidemiology (3)	
PBH 513	Public Health Law & Ethics (3)	
PBH 520	Program Planning, Implementation & Evaluation (3)	
PBH 512	Qualitative Research Methods (3)	
	Electives (12)	
PBH 613 PBH 614	Capstone-ILE, Part 1 (3) and Capstone-ILE, Part 2 (0)	(PBH 510 waived)
PBH 651	Clerkship-Applied Practice Experience (0)	At least 15 credits
	Transferred credits (9)	
JD/MPH (<i>Public Health Practice (Generalist), Public Health Policy & Advocacy, Healthcare Quality & Safety concentrations</i>)		
PBH 500	Foundations of the US Healthcare System (3)	
PBH 501	Foundations of Public Health (3)	
PBH 502	Society, Behavior & the Environment (3)	
PBH 504 Or PBH 505	Fundamentals of Statistics for Research (3) Fundamentals of Statistics for Practice (3)	

PBH 506	Fundamentals of Epidemiology (3)	
PBH 513	Public Health Law & Ethics (3)	
PBH 510	Health Research Methods (3)	
PBH 520	Program Planning, Implementation & Evaluation (3)	
	Electives (12)	
PBH 613 PBH 614	Capstone-ILE, Part 1 (3) and Capstone-ILE, Part 2 (0)	PBH 510*
PBH 651	Clerkship-Applied Practice Experience (0)	At least 15 credits
	Transferred credits (9)	
PharmD/MPH (<i>Public Health Practice (Generalist) concentration</i>)		
PBH 501 Or POP 500	Foundations of Public Health (3) Essentials of Population Health (3)	
PBH 502	Society, Behavior & the Environment (3)	
PBH 504 Or PBH 505	Fundamentals of Statistics for Research (3) Fundamentals of Statistics for Practice (3)	
PBH 506	Fundamentals of Epidemiology (3)	
PBH 513	Public Health Law & Ethics (3)	
PBH 510	Health Research Methods (3)	
PBH 520	Program Planning, Implementation & Evaluation (3)	
PBH 530	Systems Thinking	
	Electives (9)	
PBH 613 PBH 614	Capstone-ILE, Part 1 (3) and Capstone-ILE, Part 2 (0)	PBH 510*
PBH 651	Clerkship-Applied Practice Experience (0)	At least 15 credits
	Transferred credits + program requirements (12)	
EDM/MPH (<i>Public Health Practice (Generalist)</i>)		
PBH 500	Foundations of the US Healthcare System (3)	
PBH 501	Foundations of Public Health (3)	
PBH 502	Society, Behavior & the Environment (3)	
PBH 504 Or PBH 505	Fundamentals of Statistics for Research (3) Fundamentals of Statistics for Practice (3)	
PBH 506	Fundamentals of Epidemiology (3)	
PBH 513	Public Health Law & Ethics (3)	
PBH 510	Health Research Methods (3)	
PBH 520	Program Planning, Implementation & Evaluation (3)	
PBH 609	GIS Mapping (3)	PBH 504* or 505*, PBH 506* or 606*
	Electives (9)	
PBH 651	Clerkship-Applied Practice Experience (0)	At least 15 credits

	Transferred credits (9)	
PhD in Nursing/MPH (Nursing & Public Health concentration only)		
PBH 500	Foundations of the US Healthcare System (3)	
PBH 501 Or POP 500	Foundations of Public Health (3) Essentials of Population Health (3)	
PBH 502	Society, Behavior & the Environment (3)	
PBH 506	Fundamentals of Epidemiology (3)	
PBH 513	Public Health Law & Ethics (3)	
PBH 520	Program Planning, Implementation & Evaluation (3)	
PBH 512	Qualitative Research Methods (3)	
PBH 651	Clerkship-Applied Practice Experience (0)	At least 15 credits
	Transferred credits (24)	
<i>Dual degree students should consult their advisor</i>		
MPH to PhD in Population Health Science (27 credits)		
PBH 500	Foundations of the US Healthcare System (3)	
PBH 501	Foundations of Public Health (3)	
PBH 502	Society, Behavior & the Environment (3)	
PHS 605	Advanced Statistics for Data Analysis	
PBH 506	Fundamentals of Epidemiology (3)	
PBH 513	Public Health Law & Ethics (3)	
PBH 510	Health Research Methods (3)	
PBH 520	Program Planning, Implementation & Evaluation (3)	
PBH 613 PBH 614	Capstone-ILE, Part 1 (3) and Capstone-ILE, Part 2 (0)	PBH 510*
PBH 651	Clerkship – Applied Practice Experience (C-APE) (0)	At least 15 credits
Additional Requirements (18 credits)		
PBH 602	Advanced Social & Behavioral Theories & Interventions (3)	PBH 502
PBH 512	Qualitative Research Methods (3)	
PBH 515	Cultural Humility & Competence (3)	
PHS 615	Advanced Regression & Multilevel Models (3)	PHS 605
AHE 506	Subjective Outcomes in Health Evaluation (3)	
HDS 538	Implementation Science (3)	
PhD Population Health Fundamentals & Methods Core (16 credits)		
PBH 606	Advanced Epidemiology (3)	PBH 504 & PBH 506 OR PHS 605
PHS 650	Evaluative & Outcomes Research & Design (3)	
POP 500	Essentials of Population Health (3)	
AHE 501	Economics of Health Insurance (3)	
PHS 602	Bioethics (1)	

PHS 620	Teaching & Learning Seminar (3)	
Mentored & Integrative Research (7 credits)		
PHS 660	Mentored Research Experience (1 credit, taken 3 times)	
PHS 700	Integrative Research Experience (1 credit, taken 4 times)	
Comprehensive Examination & Dissertation (12 credits)		
PHS 800	Comprehensive Exam Prep (1)	All Core Coursework
PHS 801	Comprehensive Exam (1)	PHS 800
PHS 805	Dissertation Proposal Seminar (3)	PHS 801
PHS 807	Dissertation Proposal Defense (1)	PHS 805
PHS 810	Dissertation Progress (3)	PHS 807
PHS 811	Final Dissertation Defense (3)	PHS 810
<i>Dual degree students should consult their advisor</i>		
* Can be taken concurrently with permission		
See website for most up-to-date course waiver information		

To meet the requirements of the concentration, there are required concentration courses that can be taken along with elective(s).

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
CONCENTRATIONS		
Additional courses may be taken as electives with permission		
Epidemiology & Data Analytics (5 required concentrations courses + 1 elective)		
PBH 512	Qualitative Research Methods (3)	PBH 504*/505*, PBH 506*/606* (for PBH 609)
Or PBH 609	Geo-Based Information Systems (GIS) Mapping (3)	
PBH 604	Data Wrangling & Visualization with R (3)	PBH 504
PBH 605	Advanced Statistics (3)	PBH 504
PBH 606	Advanced Epidemiology (3)	PBH 504 & PBH 506 OR PHS 605
PBH 617	Social Epidemiology (3)	PBH 502 & PBH 506 & PBH 504 OR PBH 505
Public Health Policy & Advocacy (4 required concentration courses + 2 electives)		
PBH 507	Fundamentals of Environmental Health (3)	
PBH 509	Policy as a Tool for Population Health	PBH 513
PBH 518	Advocacy for Population Health Researchers & Practitioners (3)	PBH 513
PBH 511	Health Communication (3)	
Healthcare Quality & Safety (4 required concentration courses + 2 electives)		
HQS 500	Introduction to Healthcare Quality & Safety (3)	
HQS 509	Applied Principles of Healthcare Quality (3)	
HQS 504	High Reliability (3)	
OPX 532	Project Management Essentials (3)	

COURSE #	COURSE NAME (CREDITS)	PREREQUISITES
Public Health Practice (Generalist) (6 electives)		
PBH 511	Health Communication (3)	
PBH 514	Dimensions of Global Health (3)	
PBH 515	Cultural Humility & Competence (3)	
PBH 516	Health & Human Rights (3)	
PBH 602	Advanced Social & Behavioral Theories & Interventions (3)	PBH 502
PBH 603	Substance Use as a Public Health Issue	
PBH 604	Data Wrangling & Visualization with R	
PBH 607	Infectious Disease Epidemiology (3)	PBH 504* or 505* and PBH 506 or 606
<i>Other options available; students should consult their advisor</i>		
* Can be taken concurrently with permission		
See website for most up-to-date course waiver information		

Completion Timelines

COMPLETION TIMELINES	
Accelerated	Students complete all coursework, the C-APE and the C-ILE, within one academic year.
Dual Degree	Completion timelines vary by program. Dual degree students will receive program-specific timelines from their academic advisor. • JD/MPH with the Delaware Law School at Widener University • MD/MPH with Sidney Kimmel Medical College, Geisinger Commonwealth School of Medicine, Hackensack Meridian School of Medicine and other accredited medical schools • DO/MPH with the Philadelphia College of Osteopathic Medicine (PCOM) and other accredited medical schools • PharmD/MPH with the Jefferson College of Pharmacy and Philadelphia College of Osteopathic Medicine (PCOM) • MSS/MPH with the Graduate School of Social Work and the Social Research at Bryn Mawr College • EDM/MPH with the Jefferson College of Health Professions, Emergency & Disaster Management Program • PhD in Nursing/MPH with the Jefferson College of Nursing • MPH to PhD in Population Health Science with a Health Behavior Science concentration

COMPLETION TIMELINES	
Full Time	Students complete all coursework, including the C-APE and C-ILE, within two years
Part Time	Students complete all coursework, including the C-APE and C-ILE, within five years.
Advanced Standing	Completion timelines vary. Students will receive personalized timelines from their academic advisor.
Bridge/4+1	Students complete all coursework, including the C-APE and C-ILE, within five years. This timeframe starts when the student enrolls in MPH courses as an undergraduate.

Interprofessional Activity

All students are required to participate in an interprofessional activity and write a reflection paper on their experiences. Pre-approved activities have been identified, such as [Nexus Maximus](#) or any group activity provided by the [Jefferson Center for Interprofessional Education](#). More information about this requirement is available in the Clerkship –Applied Practice Experience Handbook located under **Handbooks & Forms** on the [Student Resources](#) site.

Clerkship - Applied Practice Experience (C-APE)

MPH students should refer to the *Clerkship –Applied Practice Experience Handbook* located under **Handbooks & Forms** on the [Student Resources](#) site for more information.