# **College of Health**

# College Leadership:

Elizabeth A. Dolan, *Dean* Erica Hoelscher, *Associate Dean for Faculty and Staff* Won Choi, *Associate Dean for Research and Graduate Education* Michael Gusmano, *Associate Dean for Academic Affairs* 

### Contact information:

Health | Science | Technology Building College of Health Administrative Suite #155 124 East Morton Street 610.758.1800 | (incoh@lehigh.edu) incoh@lehigh.edu website: health.lehigh.edu (https://health.lehigh.edu/) social: @lehigh.coh

Lehigh's College of Health strives for a world where everyone can reach their highest level of health. We make unconventional connections across diverse fields of study, conduct research that prioritizes real-world impact, and provide education through experience.

We offer degree programs at undergraduate and graduate levels. Our faculty conduct research, often with students, and address health comprehensively, accounting for the unique factors that impact, or determine, health, including race, gender, food security, policy, and physical environment. Faculty and students partner with affected communities to create technology-forward, data-driven methods of improving health that are culturally appropriate, accessible, and truly useful to the communities they are made to empower.

We prepare students to improve health in communities with experience that will make them stand out, whether they pursue higher education like medical school, or a career in healthcare, consulting, government, nonprofit, or any of the other many areas in the health economy.

# UNDERGRADUATE

College of Health programs prepare students for a myriad of careers in health and healthcare. Students receive an applied education through a multi-disciplinary approach, emphasizing community partnership and the use of technology and data. We offer BA and BS degrees as well as minor programs that integrate ethics, cultural understanding, and social justice. Regardless of the degree program, real-world experience is central to a College of Health degree— 25% of our major course requirements are experiential. All students have the opportunity to engage in health-related research projects, field experiences, internships, study abroad programs, and more. With our hands-on, comprehensive approach to health, students learn how health and illness are just pieces of the larger puzzle of social, political, and environmental determinants, and strive to create a world where health equity is accessible for everyone. All College of Health undergraduate degrees require a minimum of 120 credits.

# GRADUATE PROGRAMS

College of Health graduate programs equip students to understand and appropriately improve the health and well-being of populations and communities locally, nationally, and globally. Students investigate and address the multiple determinants of health through technologyand data-driven research and community partnership in all College of Health graduate programs. We empower our graduate students to shape the future to improve health of populations.

# CAREERS

Career pathways for students studying in the College of Health are abundant and wide-ranging. Students pursue employment directly in the steadily-growing healthcare sector at health systems and hospitals, in the private sector at consulting firms and pharmaceutical companies, in political and governmental fields at state, federal and international levels, as well as the nonprofit sector at NGOs and community-based organizations. We prepare students to improve the health of communities through a variety of avenues including epidemiology, medicine, data science, biostatistics, public health, community health, global health, health economics, health policy, health promotion, health research, and health technology and innovation. At the College of Health, students prepare for a flourishing career and an innovative pathway dedicated to helping others.

# **RESEARCH CENTERS AND INSTITUTES**

Lehigh's College of Health is home to three interdisciplinary institutes that focus on investigative research on specific topics and areas of expertise. Lehigh and its partners invest in research institutes that excel at focused and multidisciplinary studies, working together to solve problems both locally and globally. We study, analyze, and develop knowledge in areas of health using collaboration and communication to help generate discoveries. There is also a Health Data Warehouse, a joint intitiative with the College of Business, and a secure, high-performance computing environment designed to support faculty and researchers in health data science, Al-driven analytics, and custom software development.

- Children's Environmental Precision Health Institute (CEPH) (https:// health.lehigh.edu/research-partnerships/childrens-environmentalprecision-health-institute/)
- health data warehouse (http://catalog.lehigh.edu/ graduatestudyandresearch/researchcentersandinstitutes/hdw/)
- Institute for Indigenous Studies (IIS) (https://health.lehigh.edu/ research-partnerships/institute-indigenous-studies/)
- Institute for Health Policy and Politics (IHPP) (https://health.lehigh.edu/ research-partnerships/institute-health-policy-politics/)

# UNDERGRADUATE PROGRAMS

Contact information & Advising SUPPORT: cohadvising@lehigh.edu

# Upon completing any bachelor's degree in the College of Health, students will...

- 1. Demonstrate mastery of the determinants of health from a holistic and interdisciplinary perspective.
- 2. Demonstrate proficiency in health literacy.
- 3. Analyze the ethical complexities of health research and health decision-making.
- 4. Demonstrate proficiency in writing and critical reading skills.
- 5. Demonstrate proficiency in the methods appropriate for their field of study.
- 6. Apply course concepts to the real-world context to improve the health of communities and populations.
- 7. Critically evaluate theoretical frameworks for understanding health issues through an interdisciplinary and equity-focused lens.
- 8. Demonstrate an understanding of the importance of sustainability as it relates to health.

# college distribution requirements

To meet the above learning objectives, all students in the College of Health must fulfill the following college distribution requirements, totaling 32-37 credits. Many of these classes will be available through the individual majors in the college.

Double-counting: Students may double count a writing-intensive distribution requirement with <u>one</u> additional distribution requirement; however, they <u>cannot</u> double count across <u>other distribution</u> <u>categories</u> (i.e., determinants, bioethics, etc.). Allowances to double-count distribution courses with major electives are determined by the selected major.

For additional information about any of our undergraduate programs, visit our website (https://health.lehigh.edu/) or email us at cohadvising@lehigh.edu.

First Year Seminar (1 class, 3 credits)

HLTH 090 First Year Seminar

Health Science Writing	g (4 classes, 12-14 credits)	WRT 001 or WRT 003 Academic and Analytical Writing, WRT 002 or WRT 005 Research and Argument, (2) upper-level classes designated as health science writing listed below	
Determinants of Health	(2 classes, 8 credits)	CGH 103 Biological & Environmental Determinants of Health, CGH 104 Sociocultural & Political Determinants of Health, CGH 105 Commercial Determinants of Health	
Bioethics	(1 class, 3 credits)	Chosen from the list of approved classes below	
Diversity, Equity, and Inclusion	(1 class, 3 credits)	Chosen from the list of approved classes listed below	
Sustainability	(1 class, 3 credits)	Chosen from the list of approved classes listed below	
Bioethics			
POPH 003	Justice, Equity, and E Population Health	Ethics in 3	
POPH 319	Population Health Bio	oethics 3	
Diversity, Equity & Ir			
CGH 002	Introduction to LGBT	Q+ Health 3	
CGH 021	Culture and Health	3	
CGH 022	Global Perspectives		
CGH 122	Indigenous Healing T		
CGH 311	Religion, Spirituality,		
CGH 312	Curses, Possessions Supernatural Illnesse		
CGH 318	Sexuality Education	3	
CGH 322	Contemporary Indige	nous Health 3	
CGH 334	Cross-National Comp		
	Health Systems & Po	blicy	
Health Science Writin	-	1:4: 0	
CGH 313 CGH 314	Health Policy and Po Advanced Commerci		
CGH 314	of Health	ai Deleiminants 5	
CGH 315	Medical Mysteries	3	
CGH 316	Global Environmenta Policy	l Disasters & 3	
CGH 317	Sex, Drugs, and Trat	uma 3	
CGH 319	Public Health Law	3	
CGH 322	Contemporary Indige		
CGH 332	Aging, Health, and S	-	
EPI 310	Environmental Epide Exposure Science	miology & 3	
POPH 316	Global Sexual and R Health, Rights, and J		
Sustainability Course			
CGH 102	Community Health ar		
CGH 108 CGH 316	Food Justice Global Environmenta	I Disasters & 3	
0011010	Policy	1 DISUSIEIS & 3	

	Welfare	
POPH 317	Urban Greenspace and Health	3
Many students who purs work in a health-related students interested in pu such as allopathic (M.D. assistant (PA), dentistry students at Lehigh have	<b>PENTAL, OR VETERINARY SCHOOL</b> sue our majors continue on to graduate-level discipline. "Pre-health" students are those ursuing graduate-level study in a health field ) or osteopathic (D.O.) medicine, physician's , nursing, or veterinary medicine. Pre-health the flexibility to major in the field of their n does not offer defined "pre-med" or "pre-	
while also completing th their intended medical, of	dents to follow their strengths and passions e prerequisite coursework needed for dental, or other professional programs, in d coursework for the MCAT exam. Students	

Global Environment and Human

3

their intended medical, dental, or other professional programs, in addition to the suggested coursework for the MCAT exam. Students interested in attending medical school or other clinical paths should contact The Center for Career & Professional Development (https://careercenter.lehigh.edu/) (careercenter@lehigh.edu (careerservices@lehigh.edu)) and ask to be enrolled in the Pre-Health Advising Course Site. A proposed plan of study should be discussed with your adviser.

### undergraduate majors

**POPH 106** 

- Biostatistics & Health Data Science (http://catalog.lehigh.edu/ coursesprogramsandcurricula/health/biostats/#undergraduatetext)
- Community & Global Health (http://catalog.lehigh.edu/ coursesprogramsandcurricula/health/communityandglobalhealth/ #undergraduatetext)
- Population Health (http://catalog.lehigh.edu/ coursesprogramsandcurricula/health/ communityandpopulationhealth/#undergraduatetext)
- Intercollegiate majors
  Health, Medicine & Society (https://programs.cas.lehigh.edu/ hms/)
  - Integrated Business & Health (https://ibh.lehigh.edu/)

### Undergraduate minors

- Biostatistics (http://catalog.lehigh.edu/ coursesprogramsandcurricula/health/biostats/#undergraduatetext)
- Community Health (http://catalog.lehigh.edu/ coursesprogramsandcurricula/health/communityandglobalhealth/ #undergraduatetext)
- Environmental Health (http://catalog.lehigh.edu/ coursesprogramsandcurricula/health/ communityandpopulationhealth/#undergraduatetext)
- Epidemiology (http://catalog.lehigh.edu/ coursesprogramsandcurricula/health/ communityandpopulationhealth/#undergraduatetext)
- Global Health (http://catalog.lehigh.edu/ coursesprogramsandcurricula/health/communityandglobalhealth/ #undergraduatetext)
- Health Policy & Politics (http://catalog.lehigh.edu/ coursesprogramsandcurricula/health/ communityandpopulationhealth/#undergraduatetext)
- Indigenous Peoples Health (http://catalog.lehigh.edu/ coursesprogramsandcurricula/health/communityandglobalhealth/ #undergraduatetext)
- LGBTQ+ Health (http://catalog.lehigh.edu/ coursesprogramsandcurricula/health/communityandglobalhealth/ #undergraduatetext)
- Maternal & Child Health (http://catalog.lehigh.edu/ coursesprogramsandcurricula/health/ communityandpopulationhealth/#undergraduatetext)
- Population Health (http://catalog.lehigh.edu/ coursesprogramsandcurricula/health/ communityandpopulationhealth/#undergraduatetext)

### 4+1 ACCELERATED MASTERS PROGRAM

- 4+1 Master of Public Health (MPH) (p. 5)
- 4+1 Master of Science in Population Health (p. 5) (MS) (p. 5)\*

\*Not currently accepting applications.

# INTERCOLLEGIATE UNDERGRADUATE PROGRAMS B.A. Health Medicine & Society

# **Co-Directors:**

- Prof. Michael Gusmano, College of Health
- Prof. Lucy Napper, College of Arts & Sciences

Click here (https://programs.cas.lehigh.edu/hms/) for additional information.

The Health, Medicine, and Society major is jointly administered by the College of Arts and Sciences and the College of Health. The challenge of meeting the increasingly complex health needs of growing and aging populations is moving to the forefront of national and international concerns in the 21st century. The Interdisciplinary Health, Medicine, and Society Major focuses on the social scientific, humanistic, and applied community-engaged dimensions of health and medical care to develop an understanding of how health, illness, and medical care impact individuals, families, culture, and societies. The joint major is intended to serve students who wish to be involved in some aspect of the healthcare industry, health policy, or public health and also students who are interested in communications, the pharmaceutical industry, law, business, agency work, and other careers where understanding health care is essential.

### MAJOR REQUIREMENTS

# In addition to the 30-36 required credits, all HMS majors are required to have a second major. $^{1,\,2}$

A minimum of 3 courses must be taken at the 300 level. No more than two courses for a maximum of 8 credits may be taken outside of Lehigh, including non-Lehigh study abroad.

CORE REQUIREMENT	S	14-16
Health Humanities Co	re Course	
HMS 170	Medical & Health Humanities	
or HMS/PHIL/ REL/ETH 116	Bioethics	
Behavior, Culture, & S	ociety Core Course	
HMS/PSYC 130	Introduction to Health Psychology	
or HMS/SOC 160	Medicine and Society	
Public Health Core Co	ourse	
POPH 001	Introduction to Population and Public Health	
or CGH 001	Community Health	
or CGH 004	Introduction to Global Health	
Health Research Meth	ods Core Course <sup>3</sup>	
POPH 002	Population Health Research Methods & Application	
or BSTA 101/102	Population Health Data Science I	
or BSTA 005	Statistical Literacy in Health	
or CGH 106	Qualitative Methods in Health Research	า
CONCENTRATIONS <sup>3</sup>		9-12
	inimum of 3 courses outside of the the following concentrations:	
Health Humanities		
or		
Behavior, Culture, 8	& Society	
or		
Public Health & Pol	icy	
Please see below for	lists of concentration courses.	
ELECTIVE REQUIREN	IENTS <sup>3</sup>	6-8
	I HMS courses (at least one of which e selected concentration)	

### 1

Students are required to meet the distribution requirements of the college they were admitted to, either the College of Health or the College of Arts & Sciences.

If a student pursues the required second major as a B.A. through another college, they are required to fulfill the distribution requirements listed for a CAS/CoH B.A.+B.A. Students who pursue a combination of a B.A.+ B.S. are required to petition for a dual degree.

2

No more than two courses outside of the core courses can come from cross-listed courses within the second major, and no more than 3 courses can double-count towards both majors regardless of home college.

3

A maximum of 4 credits of HMS 221 Peer Education Foundations, HMS 271 Independent Study, HMS 292 Supervised Research, HMS 293 Internship , or HMS 294 Health Equity Internship may fulfill the major elective or major concentration requirements.

### CONCENTRATION AND ELECTIVE COURSES

A complete list of course offerings can be found each semester on the College of Health (https://health.lehigh.edu/academics/courseofferings/) and HMS (https://hms.cas.lehigh.edu/content/courseofferings/) websites. Other elective courses may be approved at the discretion of the program director.

# HEALTH HUMANITIES CONCENTRATION

### Take Three

	HMS/REL/ETH 002	Death and Dying: Religious and Ethical Perspectives	
	HMS/ETH/PHIL/REL 106	Bioethics and the Law	
	HMS/ENGL 115	Topics in Literature, Medicine, and Health	
	HMS/HIST 118	History of Modern Medicine	
	HMS 142	The Greek and Latin Roots of Medical Terminology	
	HMS/FILM 166	Topics in Film and Health	
	HMS/AAS/HIST/GS 176	Keeping Africa and Africans Healthy: A History of Illness and Wellness	
	HMS/REL/ETH 226	From Black Death to Covid-19:Plague,Pandemic,Ethics and Religion	
	HMS/MLL 257	Traditional Chinese Medicine: Historical Perspectives	
	HMS/SPAN/LAS 270	Spanish for the Health Professions	
	HMS/ENGL 315	Topics in Literature, Medicine, and Health	
	POPH 003	Justice, Equity, and Ethics in Population Health	
	POPH 319	Population Health Bioethics	
Тс	otal Credits		10-12
BE	HAVIOR, CULTURE, 8	& SOCIETY CONCENTRATION	
	ake Three		
	HMS/POLS/EVST 110	Environmental Planning for Healthy Cities	
	HMS/HIST/WGSS 125	Does Sex have a History? The History of Sexuality in the United States	
	HMS/PSYC 138	Psychopathology	
	HMS/COMM 150	Health Communication	
	HMS/ANTH/GS 155	Medical Anthropology	
	HMS/SOC 162	HIV/AIDS and Society	
	HMS/PSYC 302	Stress and Coping	

#### 4 College of Health

	HMS/AAS/GS/SOC 314	Infections and Inequalities: HIV, TB and Malaria in the Global South	
	HMS/PSYC 319	The Psychology of Trauma	
	HMS/EVST/POLS 320		
	HMS/SOC/GS 322	Global Health Issues	
	HMS/JOUR/EVST 323	Health and Environmental Controversies	
	HMS 327/327/PSYC 327	Advanced Topics in Health Psychology	
	HMS/PSYC/WGSS 334	The Psychology of Body Image and Eating Disorders	
	HMS/PSYC 344	Health Care Reasoning and Decision Making	
	HMS/PSYC 348	Drugs and Behavior	
	HMS/PSYC 386	Pediatric Psychology	
	ECO 368	Health Economics	
Т	otal Credits		11-12

### **Total Credits**

# **PUBLIC HEALTH & POLICY CONCENTRATION**

**Take Three** 

	HMS 221	Peer Education Foundations	
	HMS/POLS 307	The Politics of Mental Health Policy	
	HMS/POLS 354	U.S. Health Care Politics	
	CGH 004	Introduction to Global Health	
	CGH 105	Commercial Determinants of Health	
	CGH 107	What is the US Healthcare Ecosystem?	
	CGH 305	Advanced Qualitative Methods in Community and Global Health	
	CGH 306	Mixed Methods in Health Research	
	CGH 307	Health Survey Research Methods	
	CGH 308	Community Health Intervention Design	
	CGH 313	Health Policy and Politics	
	CGH 316	Global Environmental Disasters & Policy	
	CGH 331	Healthcare Finance	
	CGH 332	Aging, Health, and Social Policy	
	CGH/HMS/EDUC 375	Community Based Participatory Research Methodology	
	EPI 104	Fundamentals of Epidemiology	
	EPI 305	Intermediate Epidemiology	
	EPI 306	Lifecourse Epidemiology	
	POPH 105	Introduction to Maternal and Child Health	
Т	otal Credits		9-12
0	THER COURSES AND	ELECTIVES	
В	IOS 010	Bioscience in the 21st Century	3
E	ES 029	Human Health and the Environment	3
Н	MS 090	Big Questions Seminar	1-4
С	GH 103	Biological & Environmental Determinants of Health	4
Ρ	OPH 106	Global Environment and Human Welfare	3
С	GH 120	Independent Study or Research in Community and Global Health	1-4
Ρ	OPH 120	Independent Study or Research in Population Health	1-4
С	GH 130	Internship in Community and Global Health	1-4
Ρ	OPH 130	Internship in Population Health	1-4
С	GH 150	Special Topics in Community and Global Health	3-4

POPH 150	Special Topics in Population Health	3-4
HMS 291	Special Topics	1-4
HMS 292	Supervised Research	1-8
HMS 293	Internship	1-8
BSTA 308	Advanced R Programming	3
EPI 310	Environmental Epidemiology & Exposure Science	3
CGH 315	Medical Mysteries	3
CGH 330	Internship in Community and Global Health	1-4
POPH 330	Internship in Population Health	1-4
CGH 350	Special Topics in Community and Global Health	3-4
POPH 350	Special Topics in Population Health	3-4

# b.s. Integrated business & health **Co-directors:**

 Prof. Han Ye, College of Business • Prof. Eduardo Gomez, College of Health

Click here (http://catalog.lehigh.edu/coursesprogramsandcurricula/ interdisciplinaryundergraduatestudy/integbusihealth/#text) for additional information.

The BS in Business and Health trains students to apply knowledge about the social determinants of health, and the ability to work with communities, to develop and implement solutions in the health industry. This interdisciplinary program provides students with knowledge and skills from the core curriculum in business and health economics offered by the College of Business and training in health policy and community health from the College of Health.

The program follows a cohort-based structure, which ensures that students progress through the curriculum together as a group. Consequently, transferring into the program from other programs at Lehigh or external institutions is not allowed. Students must indicate their intention to enroll in the IC program when they apply for admission to Lehigh.

# Distribution Requirements<sup>1</sup>

WRT 001	Academic and Analytical Writing	3
POPH 319	Population Health Bioethics	3
Diversity, Equity & Inclu	sion <sup>2</sup>	3
Sustainability <sup>2</sup>		3
Business Core		
ECO 001	Principles of Economics	4
BUS 003	Business Communication I	1.5
MATH 081	Calculus with Business Applications I	4
or MATH 021	Calculus I	
BUAN 044	Business Analytics I	1.5
MGT 043	Organizational Behavior	3
ACCT 151	Introduction to Financial Accounting	3
ACCT 152	Introduction to Managerial Accounting	3
BSTA 101 & BSTA 102	Population Health Data Science I and Population Health Data Science I Algorithms Lab	4
or ECO 045	Statistical Methods	
BIS 111	Introduction to Information Systems	3
ECO 146	Intermediate Microeconomic Analysis	3
FIN 125	Introduction to Finance	3
MKT 111	Principles of Marketing	3
SCM 186	Supply Chain Operations Management	3
BUS 203	Business Communication II	1.5
LAW 201	Legal Environment of Business	3
BUAN 244	Business Analytics II	1.5
MGT 243	Leadership in Organizations	3

MGT 301	Strategic Management in a Global Environment Capstone	3
Foundational Courses	;	
POPH 001	Introduction to Population and Public Health	4
POPH 002	Population Health Research Methods & Application	4
BUHE 001	Integrated Seminar	3
Methods Courses		
BSTA 103 & BSTA 104	Population Health Data Science II and Population Health Data Science II Algorithms Lab	4
or ECO 157	Statistical Methods II	
EPI 104	Fundamentals of Epidemiology	3
ECO 357	Econometrics	3
or EPI 305	Intermediate Epidemiology	
Health Policy & Politic	s Core	
CGH 004	Introduction to Global Health	3
CGH 104	Sociocultural & Political Determinants of Health	4
CGH 105	Commercial Determinants of Health	4
CGH 313	Health Policy and Politics	3
One Health Policy Elect	tive at the 300-level <sup>3</sup>	3
Health Care Business	& Economics Core	
MGT 233	Managing the Health Care Workforce	3
SCM 240	Health Care Operations Management	3
ECO 368	Health Economics	3
ECO 369	Analysis of Health Care Markets	3
Integrated Capstone		
BUHE 301	Integrated Capstone	3
Free Electives 4		8
Total Credits <sup>5</sup>		122-24
4		

1

Distribution courses should be chosen in consultation with the advisor. Courses taken within the major department to satisfy a major may not satisfy distribution requirements in more than one area. The student (with the advisor's assistance) is responsible for seeing that courses used in the major are not used to complete the distribution requirements in more than one area. If a distribution requirement is applied to the major requirement, students may take any additional course(s) as long as 122 - 124 total credits are completed.

2

Courses that meet the Diversity, Equity and Inclusion and Sustainability requirements are labeled with the attributes DEIN and SUST. Additional information on courses that meet these requirements is also available by contacting the College of Health advising office at cohadvising@lehihg.edu ( cohadvising@lehigh.edu).

3

Chosen in consultation with an advisor.

### 4

Electives must be taken outside of the College of Business and the College of Health.

5

Total credits may vary depending on the student's course selection for the following requirements: BSTA 101 Population Health Data Science I & BSTA 102 Population Health Data Science I Algorithms Lab (4 credits total) or ECO 045 Statistical Methods (3 credits), and BSTA 103 Population Health Data Science II & BSTA 104 Population Health Data Science II Algorithms Lab (4 credits total) or ECO 157 Statistical Methods II (3 credits).

### **GRADUATE PROGRAMS**

Contact Information & advising SUPPORT: cohgrad@lehigh.edu

College of Health graduate programs equip students to understand and appropriately improve the health and well-being of populations and communities locally, nationally, and globally. Students investigate and address the multiple determinants of health through technologyand data-driven research and community partnership in all College of Health graduate programs. We empower our graduate students to shape the future by improving the health of populations.

- PhD in Population Health
- Master of Public Health (MPH)
- · Graduate Certificate in Global Population Health
- Graduate Certificate in Population Health
- 4+1 Accelerated Master of Public Health (MPH)
- +1 Master of Science in Health Systems Engineering (with the P.C. Rossin College of Engineering & Applied Science) (https:// engineering.lehigh.edu/ise/academics/masters-programs/)
- Flex MBA with Public Health concentration (with the College of Business) (http://catalog.lehigh.edu/coursesprogramsandcurricula/ businessandeconomics/businesseconomicsgraduatecourses/)

# DOCTORAL PROGRAM PHD in POPULATION HEALTH

Lehigh University's Doctor of Philosophy (Ph.D.) in Population Health degree prepares doctoral students to investigate, integrate, and address health determinants using multiple methodologies, including data science and community based participatory research, and develop novel and effective avenues for disease diagnosis and prevention, health promotion, and intervention. The program combines foundational courses in population health with additional data science, qualitative research methods, population health survey methods, research ethics, and policymaking. By providing a strong disciplinary and methodological foundation in Population Health through coursework, experiential learning opportunities, research projects, and engagement with traditional and non-traditional partners to pursue a healthier world, the Ph.D. program prepares students to pursue an independent line of inquiry and develop their own body of research.

The Ph.D. in Population Health program objectives reflect our commitment to graduating students who are ready and able to produce high-quality original scholarship.Upon graduation, a student completing the Ph.D. in Population Health will be able to:

- Demonstrate advanced knowledge of frameworks and concepts used in community and population health
- Develop and apply theoretical frameworks to formulate research questions relevant to interdisciplinary population health
- Select and conduct appropriate study designs to address interdisciplinary population health research questions
- Understand strategies for interdisciplinary teamwork, build trust, and strengthen communication with scholars across disciplines
- Demonstrate knowledge about the responsible conduct of research and conduct research following the rules and policies for ethical research.
- Employ written, oral, and visual communication skills to disseminate and translate scholarship to specialist and non-specialist audiences.
- Demonstrate the effective use of teaching methods to engage students in a variety of educational settings (large group, small group, in-person, or online).

The Ph.D. in Population Health degree requires a minimum of 72 credit hours. Candidates for the Ph.D. in Population Health are expected to enroll full-time and are required to be immersed in research, fulfill a teaching experience, participate in College and Department events, pass qualifying written and oral examinations, as well as complete and defend original dissertation research. A specific course of study is followed by Ph.D. in Population Health students during the first year of full-time study with elective courses completed during the first and second years of full-time study. Ph.D. students

generally begin their dissertation research in the third year of full-time study, after passing their qualifying examinations.

study, and passing the	in qualitying examinations.	
Core Requirements		12
HLTH 400	Philosophical and Theoretical Foundations of Population Health	
HLTH 412	Research Ethics in Population Health	
HLTH 416	Grant Writing	
HLTH 417	Teaching Community and Population Health	
<b>Determinants Courses</b>	s <sup>1</sup>	6
in consultation with th		
Biostatistics Course <sup>1</sup>		3
with the adviser.	used course, chosen in consultation	
Qualitative Course <sup>1</sup>		3
the adviser.	ods course, chosen in consultation with	
Epidemiology Course		3
with the adviser.	cused course, chosen in consultation	
Electives <sup>1</sup>		27
adviser. Students are provide them with ad	dits, chosen in consultation with an e encouraged to take courses that will ditional expertise in substantive and/or s of interest; 9 credits must focus on a of interest.	
<b>Population Health Dis</b>	sertation Proposal <sup>2</sup>	6
HLTH 482	Population Health Dissertation Proposal	
doctoral committee to Students will orally d their doctoral commit before proceeding to	osely with their doctoral advisor and o develop their dissertation proposal. efend their dissertation proposal to ttee and will need to obtain approval the dissertation phase.	
Population Health Dis		12
HLTH 499	Population Health Dissertation	
doctoral committee to Students will be requ and incorporate feed	osely with their doctoral advisor and o complete their dissertation project. irred to pass their dissertation defense back from the committee in order to requirements for the doctoral degree.	
<b>Total Minimum Credit</b>	S	72
1		

Courses taken outside the College of Health must be approved by an adviser.

2

If students complete 72 credits beyond the undergraduate degree and prior to advancing to candidacy, they need to be enrolled in at least 3 credit hours per semester.

3

After completion of 72 credits beyond the bachelor's degree, students are permitted to register for 'Maintenance of Candidacy' and will be charged a single credit hour of graduate tuition per semester.

# MASTER PROGRAMS

# MASTER OF PUBLIC HEALTH (mph)

Lehigh University's Master of Public Health (MPH) degree prepares students to engage in public health research, practice, and policymaking at local, state, national, and global levels. Students develop competencies in core public health disciplines, analyze health determinants using data science, and design innovative, evidencebased strategies to improve the health and well-being of diverse populations. The program integrates foundational public health courses with those in data science, qualitative research methods, health communication, and environmental health justice. Students acquire knowledge and skills through coursework, experiential learning, research projects, and engagement with diverse community partners. The MPH degree requires a minimum of 42 credits.

Core Requirements	1	
BSTA 402	Biostatistics in Health <sup>2</sup>	3
EPI 404	Methods in Epidemiology I	3
POPH 405	Qualitative Research Methods	3
PUBH 401	Health Promotion and Education	3
PUBH 402	Health Services, Administration, Politics, and Policy	3
PUBH 403	Health Program Planning and Implementation	3
PUBH 405	Program Evaluation Methods	3
POPH 409	Social Determinants of Health	3
<b>Generalist Requirer</b>	nents	
POPH 431	Environmental Health Justice	3
EPI 405	Methods in Epidemiology II	3
BSTA 403	Health Applications in Statistical Learning	3
Elective <sup>1</sup>		
provide them with ad methodological area	aged to take an elective that will ditional expertise in a substantive or of interest. Electives can be taken outside n, but adviser approval is required.	3
Practicum and Capa	stone	
PUBH 410	Applied Practice Experience	3
PUBH 411	Public Health Capstone	3
Total Credits		42
1		
For students enrolled	l in the 4+1 accelerated BS/MPH or BA/MPH	4
	In the 4+1 accelerated b5/WFTT of bA/WFTT	

For students enrolled in the 4+1 accelerated BS/MPH or BA/MPH program, courses taken during the student's undergraduate degree cannot be applied as an undergraduate degree requirement.

If the student has taken BSTA 101 Population Health Data Science I and BSTA 102 Population Health Data Science I Algorithms Lab or is majoring in Biostatistics & Health Data Science, replace BSTA 402 Biostatistics in Health with an adviser-approved elective.

# 4+1 aCCELERATED Master PROGRAM

Qualified students can earn a master's degree at an accelerated pace. Students accepted into the 4+1 accelerated master program begin taking the suggested graduate classes during their junior and senior year. After successful completion of twelve (12) credits of graduate coursework (grade 'B' or higher), they can complete the graduate program in one full year after graduating with their undergraduate degree.

Current Lehigh students who have a minimum overall GPA of 3.5 may be automatically accepted into the 4+1 accelerated master program once they have achieved junior standing (a minimum of 54 credits). Students wishing to pursue this program who do not qualify for direct admittance based on their GPA are welcome to apply for acceptance. Graduate courses taken while in the 4+1 program do not count toward undergraduate degree credits, so it's important to plan ahead.

Students interested in learning more about the 4+1 program are encouraged to attend an info session (https://health.lehigh.edu/ academics/undergraduate-programs/) or to contact the College of Health graduate advising team at cohgrad@lehigh.edu (cohadvising@lehigh.edu).

### Benefits of the 4+1 program include:

- Graduate courses taken as an undergraduate are included in undergraduate tuition;
- No application process for students with an overall GPA of 3.5 or better;

- · Completion of up to 4 graduate courses while an undergraduate student;
- 30% tuition discount on graduate tuition during the +1 full-time graduate year;
- A savings of more than 40% off the total cost of the graduate degree;
- Fulfillment of master degree requirements in 1/2 the time.

# recommended 4+1 MPH schedule \*

\*Not following the recommended course schedule may result in a delayed graduation.

# Junior Year (Fall)

PUBH 401	Health Promotion and Education
Junior Year (Spring)	
PUBH 402	Health Services, Administration, Politics, and Policy
Senior Year (Fall)	
PUBH 403	Health Program Planning and Implementation
Senior Year (Spring)	
EPI 404	Methods in Epidemiology I

### **GRADUATE CERTIFICATES POPULATION HEALTH CERTIFICATE**

## The graduate certificate in population health will prepare students to learn and apply graduate-level introductory Population Health concepts and methodology. The certificate requires a minimum of 12 credits, including introductory courses in Population Health, Epidemiology, and Population Health Data Science, as well as an elective course selected in consultation with the adviser. The 12 credits earned in this certificate program can be applied to the Master

Total Credits		12-13
Elective chosen in consultation with the advisor.		3-4
or POPH 405	Qualitative Research Methods	
BSTA 402	Biostatistics in Health	3
EPI 404	Methods in Epidemiology I	3
POPH 401	Population Health Concepts and Methods	3
of Public Health (MPH).		

### Total Credits

### **Global Population Health Certificate**

The graduate certificate in Global Health is open to all graduate students at Lehigh, graduate students from other accredited institutions, and non-degree-seeking students who have a bachelor's degree. The certificate can complement studies pursued within Lehigh's other graduate programs or the College of Health's Master of Public Health (MPH), but no more than one course approved by a College of Health adviser may count for both the graduate Global Health Certificate and other declared program of study. There are no additional admissions requirements.

Total Credits		12
Elective chosen in consultation with the adviser.		3
BSTA 402 or POPH 405	Biostatistics in Health Qualitative Research Methods	3
POPH 414	Global Health Research or Field Experience	3
POPH 413	Foundations of Global Health	3