

# PUBLIC HEALTH MAJOR

## Public Health: Health Sciences Major Information:

Students learn to leverage technology to track disease outbreaks. Students ensure safe drinking water is available in all communities and how climate change continues to affect public health. A degree in Public Health sets students on a path to make an impact on health care and overall quality of life for communities both near and far.

Public health is a diverse and rapidly growing field, with a need for skilled professionals holding a variety of roles at the community, state, and federal levels. The Public Health: Health Sciences major is based in a biology, with emphasis on human health and diseases. The program provides a strong foundation developing and refining skills needed to identify, collect and interpret biological data needed to address public health concerns.

## Learning Outcomes:

- Creatively formulates means by which to address structural bias, social inequities, and racism that undermine health and prevent achievement of health equity
- Effectively interacts with various systems and stakeholders to advocate for health equity and to address the social determinants of health
- Accurately assesses population health status to inform public health planning and to evaluate the effectiveness of public policies
- Successfully locates, evaluates, and uses reliable and current information to address the root causes of public health issues and to conduct public health research
- Accurately identifies and interprets the relationship between biological data and community/population health and correctly articulates the limitations of scientific analysis on interpreting community/population data
- Accurately and efficiently locates, evaluates, and summarizes biological data needed to address public health concerns
- Correctly designs and conducts biological experiments addressing public health questions and effectively communicates experimental outcomes with both the scientific and local communities

## Faculty

### Contact for Public Health

**El-Sheikh, Amal**, Professor of Biology, PhD, *Anatomy & Physiology, Pathophysiology, Medical Ethics*, amal.el-sheikh@alverno.edu (<https://catalog.alverno.edu/laps/ns/pharm/amal.el-sheikh@alverno.edu>)

### Public Health Faculty

**Coss, Jenna**, Physical Science Laboratory Manager, MS, *General Chemistry and Biology*, jenna.coss@alverno.edu (<https://catalog.alverno.edu/laps/ns/chem/jenna.coss@alverno.edu>)

**El-Sheikh, Amal**, Professor of Biology, PhD, *Anatomy & Physiology, Pathophysiology, Medical Ethics*, amal.el-sheikh@alverno.edu (<https://catalog.alverno.edu/laps/ns/pharm/amal.el-sheikh@alverno.edu>)

**Klingler, Rebekah**, Associate Professor of Biology, *Molecular Biology, Genetics, Immunology, Epidemiology, Public*

*Health*, rebekah.klingler@alverno.edu (<https://catalog.alverno.edu/laps/ns/pharm/rebekah.klingler@alverno.edu>)

**Krueger, Megan**, Biology Laboratory Manager, MS, General Biology, megan.krueger@alverno.edu (<https://catalog.alverno.edu/laps/ns/pharm/megan.krueger@alverno.edu>)

**LaManna, Justin**, Professor of Biology, PhD, *Anatomy & Physiology, Pathophysiology, Environmental Biology*, justin.lamanna@alverno.edu (<https://catalog.alverno.edu/laps/ns/pharm/Justin.LaManna@alverno.edu>)

## Major Req

## Public Health: Health Sciences <sup>(PHHS.D.BS)</sup> Major Requirements 25-26 Catalog

Code	Title	Credits
<b>CORE REQUIREMENTS</b>		
BSC-257	Statistics for Health Professionals (General Education)	4
RL-252	Medical Ethics	4
POL-225	American Politics (General Education )	4
PSY-110	Life Span Development	4
PHTH-101	Introduction to Public Health	2
PHTH-201	Foundations of Public Health	3
PHTH-260	Epidemiology	4
PHTH-310	Health Policy and Advocacy	2
PHTH-330	Global Health	4
PHTH-341	Environmental Health	4
PHTH-490	Senior Seminar in Public Health	2
INTERN-383	Internship Seminar	2
SC-119 & 119L	Foundations of Chemistry and Foundations of Chemistry Lab	4
SC-120 & 120L	Foundations of Biology and Foundations of Biology Lab (General Education )	4
<b>HEALTH SCIENCE REQUIREMENTS</b>		
CH-213 & 213L	Chemistry of Bioorganic Molecules and Chemistry of Bioorganic Molecules Lab	4
BI-233 & 233L	Human Anatomy & Physiology 1 and Human Anatomy & Physiology 1 Lab	4
BI-251 & 251L	Microbiology and Microbiology Lab	4
BI-333	Human Anatomy & Physiology II	3
BI-338	Pathophysiology	4
BI-395 or CH-395	Biochemistry of Micronutrients Biochemistry of Micronutrients	3
BI-452	Immunology	3
<b>Total Credits</b>		<b>72</b>

## Major Map

### Public Health: Health Sciences (PHHS.D.BS) Map 25-26 Catalog

#### First Year

Fall	Credits	Spring	Credits
FSS-125		2 CM-120	4
QL-122		4 HUM-150	4
SC-119 & 119L		4 PHTH-201	3
SC-120 & 120L		4 CH-213 & 213L	4
AC-151		0	
PHTH-101		2	
	<b>16</b>		<b>15</b>

#### Second Year

Fall	Credits	Spring	Credits
CM-125		3 CM-225	3
FA-110		4 BSC-215	2
MT-256		4 BI-233 & 233L	4
PSY-110		4 BI-333	3
ADV-299		0 BI-251 & 251L	4
	<b>15</b>		<b>16</b>

#### Third Year

Fall	Credits	Spring	Credits
PPS-229		1 BI-395	3
RL-252		4 BI-338	4
BI-452		3 BSC-257	4
POL-225		4 PHTH-260	4
PHTH-310		2	
General Electives		2	
	<b>16</b>		<b>15</b>

#### Fourth Year

Fall	Credits	Spring	Credits
Global Effective Citizen: Choose One Course: GEC 302, AHS 409/GEC 307, GEC 312, GEC 314, GEC 315, GEC 317, GEC 320, GEC 324, GEC 328, GEC 333, GEC 398		3 PHTH-490	2
INTERN-383		2 General Electives	10
PHTH-330		4	
PHTH-341		4	
General Electives		2	
	<b>15</b>		<b>12</b>

**Total Credits 120**