

# Environmental Health Sciences

University of Minnesota - School of Public Health



## Industrial Hygiene Student Curriculum

### School of Public Health Core Requirements:

*(Note: Courses marked with \* can be taken on-line during Fall, Spring & Summer semesters)*

PubH 6020*	Fundamentals of Social and Behavioral Science	3 cr
PubH 6320*	Fundamentals of Epidemiology	3 cr
PubH 6741*	Ethics in Public Health: Professional Practice and Policy	1 cr (MPH)
PubH 6742*	Ethics in Public Health: Research and Policy	1 cr (MS)
PubH 6751*	Principles of Management in Health Service Organizations	2 cr

One of the following:

PubH 6414*	Biostatistical Methods I	3 cr
PubH 6450	Biostatistics I	4 cr

### Division of Environmental Health Sciences Core Requirements:

PubH 6103	Exposure to Environmental Hazards	2 cr
PubH 6104	Environmental Health Effects: Introduction to Toxicology	2 cr
PubH 6105	Environmental and Occupational Health Policy	2 cr
PubH 7194	Master's Project: Env. Health (Lit. Review or Research Paper)	3 cr (MPH)
PubH 7194	Master's Project: Environmental Health (Research Paper)	3 cr (MS)
PubH 7196	Field Experience: Environmental Health	3 cr

### Occupational Health and Safety Core Requirements:

PubH 6130	Occupational Medicine: Principles and Practice	2 cr
PubH 6150	Interdisciplinary Evaluation of OH&S Field Problems	3 cr
PubH 6170	Introduction to Occupational Health and Safety	3 cr

*(Note: Unless told otherwise, students must take the classroom version of PubH 6170 rather than the on-line version)*

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### Industrial Hygiene Program Requirements:

*(Note: Most of these courses are offered in alternating years)*

PubH 6172	Industrial Hygiene Applications	2 cr
PubH 6173	Exposure to Physical Agents	2 cr
PubH 6174	Control of Workplace Exposures	3 cr
PubH 6175	Environmental Measurements Laboratory	2 cr
PubH 6192	Measurement and Properties of Air Contaminants	2 cr
PubH 6193	Advanced Topics in Human Exposure Science	2 cr
INDUSTRIAL HYGIENE ELECTIVES		at least 6 cr

### Industrial Hygiene Electives:

*(Note: Many of these courses are not offered every year)*

PubH 6112	Risk Analysis: Application to Risk-Based Decision Making	3 cr
PubH 6115	Worker Protection Law	1 cr
PubH 6116	Environmental Law	1 cr
PubH 6120	Injury Prevention in the Workplace, Community, and Home	2 cr
PubH 6131	Working in Global Health	2 cr
PubH 6132	Air, Water, and Health	2 cr
PubH 6140	Occupational and Environmental Epidemiology	2 cr
PubH 6161	Regulatory Toxicology	2 cr
PubH 6176	Hazardous Materials and Waste Management	2 cr
PubH 6182	Emerging Infectious Disease	3 cr
PubH 6190	Environmental Chemistry	3 cr
PubH 6415	Biostatistical Methods II	3 cr
PubH 6451	Biostatistics II	4 cr
PubH 7220	Personal Protective Equipment and Respiratory Protection	1 cr
PubH 7260	Ergonomics and the Prevention of Workplace Injuries	1 cr
CE 4561	Solid Hazardous Wastes	3 cr
CE 5551	Environmental Microbiology	3 cr
IE 5511	Human Factors and Work Analysis	4 cr
IE 5513	Engineering Safety	4 cr
Kin 5001	Foundations of Human Factors/Ergonomics	3 cr
ME 5113	Aerosol/Particle Engineering	4 cr
ME 5133	Aerosol Measurement Laboratory	4 cr
PA 5721	Energy and Environmental Policy	3 cr
Other courses approved by your academic advisor		

**MINIMUM TOTAL CREDITS:**

**51 cr**

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## Example IH Student Course Plan

PLEASE NOTE: This is an example; individual course plans may vary depending on the needs and interests of each student

### Fall 1

PubH 6103	Exposure to Environmental Hazards	2 cr	TuTh 5:45 – 7:40 (first 7 weeks)
PubH 6104	Environmental Health Effects	2 cr	TuTh 5:45 – 7:40 (last 7 weeks)
PubH 6170	Introduction to Occupational Health and Safety	3 cr	W 2:30 – 5:30
PubH 6192	<i>Msmt. and Props. of Air Contaminants (odd years)</i>	2 cr	WF 12:20 – 2:15 (first 7 weeks)
PubH 6193	<i>Adv. Topics in Human Exposure Science (odd years)</i>	2 cr	WF 12:20 – 2:15 (last 7 weeks)
PubH 6414	Biostatistical Methods I	3 cr	TuTh 9:45 – 11:00 + lab
	INDUSTRIAL HYGIENE ELECTIVE (even years)	<u>2-4 cr</u>	
	<b>Total</b>	<b>12-14 cr</b>	

### Spring 1

PubH 6105	Environmental and Occupational Health Policy	2 cr	Tu 6:00 – 7:55
PubH 6150	Interdisciplinary Evaluation of OH&S Field Problems	3 cr	Tu 10:10 – 1:10
PubH 6172	<i>IH Applications (odd years)</i>	2 cr	W 9:05 – 11:00
PubH 6173	<i>Exposure to Physical Agents (even years)</i>	2 cr	M 4:40 – 6:40
PubH 6174	<i>Control of Workplace Exposures (odd years)</i>	3 cr	M 4:40 – 7:40
PubH 6175	<i>Environmental Measurements Laboratory (even years)</i>	2 cr	W 12:20 – 4:25
	INDUSTRIAL HYGIENE ELECTIVES	<u>1-4 cr</u>	
	<b>Total</b>	<b>10-14 cr</b>	

### Summer

PubH 7196	Field Experience	<u>3 cr</u>	
	<b>Total</b>	<b>3 cr</b>	

### Fall 2

PubH 6020	Fundamentals of Social and Behavioral Science	3 cr	TuTh 11:15 – 12:30
PubH 6192	<i>Msmt. and Props. of Air Contaminants (odd years)</i>	2 cr	WF 12:20 – 2:15 (first 7 weeks)
PubH 6193	<i>Adv. Topics in Human Exposure Science (odd years)</i>	2 cr	WF 12:20 – 2:15 (last 7 weeks)
PubH 6320	Fundamentals of Epidemiology	3 cr	Tu 3:35 – 5:30 + lab
PubH 6741/2	Ethics in Public Health	1 cr	M 12:20 – 2:15 (half semester)
	INDUSTRIAL HYGIENE ELECTIVES (even years)	<u>2-4 cr</u>	
	<b>Total</b>	<b>9-11 cr</b>	

### Spring 2

PubH 6130	Occupational Medicine	2 cr	W 5:00 – 7:00
PubH 6172	<i>IH Applications (odd years)</i>	2 cr	W 9:05 – 11:00
PubH 6173	<i>Exposure to Physical Agents (even years)</i>	2 cr	M 4:40 – 6:40
PubH 6174	<i>Control of Workplace Exposures (odd years)</i>	3 cr	M 4:40 – 7:40
PubH 6175	<i>Environmental Measurements Laboratory (even years)</i>	2 cr	W 12:20 – 4:25
PubH 6751	Principles of Mgmt. in Health Service Organizations	2 cr	on-line
PubH 7194	Master's Project	<u>3 cr</u>	
	<b>TOTAL</b>	<b>11-12 cr</b>	

**TOTAL CREDITS (assuming 6 elective credits) 51 cr**

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